

FACTORS AFFECTING STUDENT RETENTION IN AN ONLINE GRADUATE
CERTIFICATE PROGRAM: A GROUNDED THEORY STUDY

By

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2003

ACKNOWLEDGMENTS

This dissertation is dedicated to my husband, Jerome Keith Splichal, whose love and support have made it possible for me to be much more than I ever thought possible. His willingness to put his own needs aside to serve those of his family are a constant inspiration to me. I also thank daughter Coty who has given me a role model as she seeks her own path through life.

Many thanks go to my family, who led the way academically and showed me that lifelong learning is a wonderful goal.

I came back to school to get my master's and doctoral degrees while working at Santa Fe Community College. The support of my Santa Fe family has meant a great deal to me and allowed me to pursue this achievement. I would especially like to thank Drs. Portia Taylor and Pat Grunder for their leadership.

While in school I became part of a cohort of community college colleagues. Paul Hutchins, Ed.D., Kathryn Birmingham, Ph.D., and Kurt Havird, M.Ed., and I made it through together, and I appreciate their hard work and willingness to be a team.

I give many thanks go to my dissertation committee, Dr. Dale F. Campbell, Dr. Barbara J. Keener, Dr. David S. Honeyman, and Dr. H. John Hall. Drs. Campbell and Keener cochaired my committee and their insight, support and confidence in me has been very valuable. Dr. Honeyman has been steadfast and this study would not have been completed without Dr. Hall's qualitative research expertise and readiness to guide the

process. Their willingness to challenge, engage, support, and share their knowledge has made a vast difference to this student.

I thank all the students, faculty, and administrators who committed time and their own personal experiences to this study for their support, insight, and willingness to share experiences good and bad.

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Abstract of Dissertation Presented to the Graduate School
Of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

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May 2003

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As graduate distance education provided over the Internet continues to grow in scope and scale, universities will create niche programs marketed to specific student groups. Given that the institution has committed resources and reputation to the program, and because student retention is used as a core indicator of institutional performance, it is incumbent on the institution to understand barriers to student retention in an online program.

While many studies exist to understand student satisfaction and retention in individual courses offered through various distance education technologies, few studies have examined retention issues and barriers to success across an online graduate program. The following question framed the study, "What factors affect the completion of the online graduate certificate program?" This broad question was refined and focused as various perspectives of students (both those completing and not completing the

program), instructors, administrators, and curriculum developers were compared through grounded theory techniques to build underlying theory.

A bounded system, an existing Enrollment Management Certificate program, was chosen for study. Open, axial, and selective coding of interviews and course evaluations resulted in a Theoretical Model of Administrative Transactions. This model shows how factors under institutional control—such as level of student services provided; frequency and speed of communication among students, faculty, and coordinators; course fees; and institutional policy and communication—impacted student satisfaction, and therefore retention, in an online program of courses. Theory was developed expanding Holmberg's theory of guided didactic conversation, adding that distance teaching will be successful only to the extent that administrative transactions support the student and the faculty, removing barriers to success and mediating the institution's culture to enhance the learning experience.

The findings of this research will assist online distance education providers and may impact additional theory, including Moore's theory of transactional distance. Implications for theory and practice were examined and recommendations were made for additional research.

CHAPTER 1 INTRODUCTION

In 1999, the National Center for Education Statistics (NCES) released a survey on national postsecondary distance education that showed 78% of public 4-year and 19% of private 4-year institutions offered distance education. Distance education was defined by the NCES as "education or training courses delivered to remote (off-campus) location(s) via audio, video (live or prerecorded), or computer technologies, including both synchronous and asynchronous instruction" (NCES, 1999, p. 16). Examining all distance education courses, 58% used asynchronous Internet instruction and 19% used synchronous Internet instruction. Between 1995 and 1997-98, use of asynchronous Internet use tripled. In 1997-98, 2- and 4-year institutions offered an estimated 340 distance education certificate programs; when offered by 4-year institutions, these certificate programs were most likely to be offered to graduate students in business and management, the health professions, education, and engineering (National Education Association [NEA], 2000). There were an estimated 281,200 students enrolled in graduate distance education courses. The NCES survey results also stated that an additional 20% of institutions surveyed planned to establish distance education programs within 3 years. In addition, distance education was identified as a critical issue for colleges at the 2002 Community College Futures Assembly (Campbell & Peek, 2002). Clearly, the distance education movement is growing rapidly in higher education, particularly for graduate student education.

The number of nontraditional adult students is growing rapidly. Between 1970 and 1995 this group of students more than doubled, and their number is expected to grow to almost 70 million in 2007 (Duvall & Schwartz, 2000). Many institutions are feeling pressure to offer online courses, yet most faculty and administrators are ill prepared to do so effectively (Schrum, 1998). As institutions create program certificate and other specialty or niche graduate programs for this group of learners, it is important to understand what affects student satisfaction, and therefore retention, in these programs.

Online Education

In its most general sense, distance education is instruction delivered over a distance to one or more persons (NCES, 1999). Instruction may be delivered via one-way (for example, correspondence, compact disks, videotape, asynchronous Internet, satellite, television, radio) or two-way (synchronous Internet, interactive videoconferencing, telephone) communication. Hallmarks of distance education include separation of instructor and learner, volitional control of learning by the student rather than faculty, and use of an educational media to carry course content (Sherry, 1996; Palloff & Pratt, 1999).

Since the development of the World Wide Web, online distance education has developed rapidly. Online (also called computer-mediated) distance education is delivered over the Internet, the worldwide system of computer networks. It may be asynchronous, defined as a "high degree of interactivity among geographically separated learners, independent of time or place" (Mayadas, 1997, para. 7); or synchronous, which includes interactivity at the same time among learners and/or instructor. Examples of asynchronous computer-mediated instruction include use of website-based text and learning activities, streaming video of an instructor's lecture, discussion boards (postings

on topic by student or instructor that may be visited at will), and compact disks used in lieu of printed texts. Synchronous online technologies include videoconferencing over the Internet and chat rooms, where students and instructor chat in a text-based medium in real time.

A variety of positive and negative aspects is attributed to Internet education (Valenta, Therriault, Dieter & Mrtek, 2001). Positive aspects include flexibility and convenience, access/interaction with the instructor, better performance, a collaborative learning environment, and a positive learning experience. Negative aspects include limited interactivity, technological problems, increased student workload, lack of logistical support, and extraordinary costs.

Universities are creating niche products, such as specialized online certificate programs and others, to meet personal and professional needs of the continuing lifelong learner (Phillips & Peters, 1999). They are also competing against a variety of players in the virtual education marketplace and are expending dollars to meet this niche need (Tsang, 2001). The costs of developing, implementing and delivering distance education courses can be substantial (NCES, 1999). Costs include hardware, software, technical assistance, course development and a high level of student support services (Bauman, 2002a). Once implemented, retaining students in a program is more cost effective than trying to market to, select, and enroll new students.

Retention in the Online Environment

Lorenzetti (2002) stated that across all distance education programs dropout rates vary but may range as high as 50%. Very little is known about attrition in all graduate study programs (Cooke, Sims, & Peyrefitte, 1995) and even less about attrition in distance education graduate study programs. One article noted that Concord University,

an online law school, had a stable retention rate at 70%, considered high by the authors (Concord University's Three Laws, 2002). Phipps and Merisotis (1999) found that distance education research tends to focus on single courses rather than programs and does not adequately explain higher attrition rates for distance learners.

Graduate student attitudes and intentions are significant factors correlated with retention in a graduate program (Cooke et al., 1995). The authors stated that intent to remain in the program, affective commitment, met expectations, and need for achievement were important predictors of attrition 18 months later. Students attracted to distance learning courses shared specific characteristics: they were voluntarily seeking to further their education; were motivated and more self-disciplined; tended to be older than the average student; and possessed a more serious attitude toward coursework (Palloff & Pratt, 1999). Distance education programs must be sensitive to unique requirements of graduate education, such as higher order thinking skills, frequent and intense interaction between faculty and students, and student independence of effort (Swenson, 1995). Predisposing characteristics, life changes, and institutional factors affected student success and retention in distance education programs (Powell, Conway, & Ross, 1990). Hara and Kling (1999) stated that many advocates of distance education emphasize its positive aspects, rather than focusing on student frustrations with the media, which include lack of prompt feedback, ambiguous instructions on the Web, and technical difficulties. These authors advocated additional student-centered research in the appropriate use of technology and pedagogy to make distance education more beneficial to students.

Why is retention important? There is an increased concern over accountability in higher education, examining financial support against outcome measures such as

retention (Hecht, Higgerson, Gmelch, & Tucker, 1999; Honeyman & Bruhn, 1996). Dill (1997) notes that accountability measures such as retention and persistence help guide program continuation and funding. Finally, a multitude of online education providers, both public and private, is entering the graduate and continuing education arena (Fink, 1997). Once funding has been invested in creating and marketing programs and enrolling students, it is more cost effective to retain these students than to find new ones.

Statement of the Problem

With the growth of online education, particularly graduate level education, comes the need to understand barriers to retention in an online degree- or certificate-seeking program. While many studies exist to understand student satisfaction and retention in individual courses offered through various distance education technologies, particularly interactive television, few studies have examined retention issues and barriers to success across an online graduate program (Hara & Kling, 1999).

Many models of undergraduate attrition focus on individual factors such as age, race, sex, and socioeconomic status. Cooke et al. (1995) note that while these relationships are interesting to examine, they are not under institutional control. Should an institution research these factors contributing to graduate student attrition, opportunities under the university's control to take proactive measures towards retention may be lost. Understanding theory underlying graduate student retention in an online program of study may assist higher education entities in meeting distance learning strategic goals.

Holmberg's (1995) theory of distance education, also called Holmberg's theory of guided didactic conversation, states that distance teaching will be successful only to the extent that it supports student motivation and learning pleasure, makes the content

relevant to the student's needs and easily acceptable, and creates communication between faculty and student. Extending this theory to online distance education allows the researcher to examine factors of support mechanisms and communication that assist in student retention.

Purpose of the Study

This study was developed to examine factors affecting retention in an online graduate Enrollment Management certificate program. A qualitative study, the research questions were designed to explore the boundaries of this concern and lead to the development of theory (Strauss & Corbin, 1998). The following question framed the study, "What factors affect the completion of the online graduate certificate program?" This broad question was then refined and focused as various perspectives of students (both those completing and not completing the program), instructors, administrators, and curriculum developers were compared through grounded theory techniques to build underlying theory regarding factors under the control of the institution that impact student retention in an online program of study.

Research Questions

The research addressed the following questions:

1. What are the factors perceived as affecting successful completion of the program by students?
2. What are the factors perceived as affecting successful completion of the certificate by program administrators, designers and faculty?
3. How do these perceived factors support or conflict with each other?
4. What process theory might develop leading to retention of students in an online program of study?

Design of the Study

The research method was based in grounded theory, "theory that was derived from data, systematically gathered and analyzed through the research process" (Strauss & Corbin, 1998, p. 12). There is no preconceived theory, rather a theory emerges from the data—the theory denoting a set of well-developed categories systematically interrelated through statements of relationship to form a theoretical framework that explains some relevant phenomena. In the grounded theory process, researchers use open and axial coding of the data, along with careful examination and interpretation. While analyzing, data are categorized—these categories, along with their relationships, ground the developing theory.

An online graduate program in enrollment management was chosen as the "bounded system" (Merriam, 1988; Stake, 1988). The program offered online courses, out of which a student has to complete 16 credit hours. Each student, regardless of current program status, was contacted and offered the chance to participate in an interview. Interviews from course instructors and program administrators (including the curriculum designer) were requested to allow comparison to student perceptions. At the end of each course, students were given an online evaluation of the course and instructor—these were also reviewed to provide constant comparison to interview outcomes. Results from the various interviews and the examination of course evaluations were triangulated to validate results.

Methods

The inquiry process and the grounded theory method are described in Chapter 3. Results are provided in Chapter 4. A qualitative approach to the research was used to seek to understand the subject's point of view, leading to general explanatory theory for the study (Dooley, 2001).

Study Assumptions

It was assumed that any student entering any graduate program should bring to the class self-direction and responsibility for their own learning. As a shift in education has taken place from direct instruction to constructivist approaches, online instructional educators consider the student as being fundamentally responsible for learning (Howland & Moore, 2002). For this research, self-directed learning is "defined here as an approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes" (Garrison, 1997, para. 3).

Study Limitations

This study focused on those factors within a bounded system that supported student persistence or retention in an online graduate certificate program in enrollment management. The study was conducted under certain intent and scope. Research was restricted to those factors, positive and negative, identified through the grounded theory process as pertinent to student retention within this particular program. Because students and faculty/administrators volunteered to participate, there was a sample of convenience, which created a limitation for this study. Because of this, and because grounded theory research provides explanatory power rather than generalizability, the results can only be applied to similar situations with students and programs.

Organization of the Study

The study contains five chapters. Chapter 1 introduced the study, the problem, its context, and the research method. Chapter 2 is a review of relevant literature. Chapter 3 defines the bounded case study, and describes the method of data collection and analysis.

Chapter 4 provides a rich description of the data and the coding structures leading to an understanding of those factors affecting student retention in the program. Chapter 5 gives the conclusions leading to theory creation, compares results to the literature, provides implications for theory and practice, and gives recommendations for further research.

CHAPTER 2

RESEARCH IN DISTANCE EDUCATION

In Chapter 2, literature is reviewed in current research in online distance education and retention, theory and research on student satisfaction and attitudes in distance education, barriers to distance education, and an overview of best practices based on research in Internet-based distance education.

Retention in Higher Education

Retention is defined as students' persistence in completing their education goals (i.e., being retained in an educational program until graduation). Tinto (1993) suggested that student retention is linked directly to the student's integration into the institution's social and academic communities. Increased integration leads to a greater commitment to educational goals, which in turn leads to greater student persistence. Academic integration is defined as "the full range of individual experiences which occur in the formal and informal domains of . . . the academic systems of the university" (Tinto, 1993, p. 118). Social integration refers to formal and informal student social interactions. The majority of all institutional attrition occurs during the first year and prior to the beginning of the second year, with reported first-year attrition at 26.8% at 4-year institutions and 44% at 2-year colleges (Tinto, 1993). The factors that cause students to persist in school have been studied by a variety of researchers (Brawer, 1996). Tinto (1998) stated that involvement matters. The more socially- and academically-involved

students are, the more they interact with other students and with faculty and the more likely they are to persist.

To first understand persistence, one must examine the characteristics of persisters and nonpersisters. Brawer (1996) examined research in the field and noted that full-time attendance at an institution was the most prevalent characteristic of persisters. There was conflicting information regarding the effect of student age on retention. Some studies showed that younger students persist more than older students, while others reported the risk of dropping out is greater among younger students. Other characteristics that affected a student's persistence included full-time employment, grade-point average, family obligations, financial concerns, and gender. Braxton, Milem, and Sullivan (2000) added to this list of characteristics parental education level, academic ability, socioeconomic status, race, and precollege learning experiences.

McGrath and Braunstein (1997) examined retention of freshmen in a New York college. The study examined predictors of attrition among freshmen who voluntarily withdrew from the institution. Participating students were surveyed, and researchers had access to their academic, financial and demographic records. McGrath and Braunstein found that for this student population, age, gender, race and ethnicity, marital status, parent's educational backgrounds, student's native language, distance from the student's home to the college, and student's residence on campus were not significant predictors of retention. Socioeconomic background, high school grade point average, combined SAT scores, first semester grade point averages, participation in financial aid, and initial impressions of the institution were significant predictors of retention.

The majority of all institutional attrition occur during the first year and before the second year begins (Beil, Reisen, & Zea, 1999). Academic and social experiences

strongly influenced retention through the integration of the student into social and academic communities. Commitments to the institution and to finishing college both predicted retention in models examining retention at a residential state university. Beil et al. (1999) believed that academic and social integration are not as important as the commitment to remain in school—however, they do influence commitment to the institution. That commitment translated into long-term retention.

Tinto (1998) promoted connected learning among students. Because students who were involved both socially and academically have better persistence rates, Tinto believed that students should participate in learning communities utilizing a shared curriculum, and that the classroom should be reorganized to promote shared, collaborative learning experiences. Tinto's learning communities allowed students to form a cohort and continue through their academic coursework in collaborative and content-oriented learning groups. This provided students with shared knowledge—promoting high levels of cognitive complexity. These learning communities also provided students with shared knowing—social interaction between students, allowing them to understand and support each other more quickly. Students interacted both socially and academically, which promoted both supportive peer groups and studying outside the formal classroom experience. As the students spent more time learning, they learned more, enhancing persistence.

Braxton, Milem and Sullivan (2000) advanced Tinto's retention theories by researching how social integration adds to student retention. The authors focused on faculty providing active learning. Active learning was defined as any class activity that involves students in thinking and doing, such as discussion, cooperative learning, debates, role-playing, and course examinations. According to the authors, active learning

should not be confused with the academic integration theory of Tinto—active learning is conceptually distinct. Students who experience active learning may feel more prepared for their coursework, which allows them more time to participate in institutional social activities.

Strategies for faculty to influence social integration, institutional commitment and the decision by the student to persist included "encouragement of faculty-student contracts, encouragement of cooperation among students, encouragement of active learning, prompt feedback, emphasizing time on task, communicating high expectations, and respect for diverse talents and ways of knowing" (Braxton, Milem, & Sullivan, 2000, no page). The authors also suggested that faculty promote retention by being particularly attentive to the needs of first-year students and that advisors understand the amount of active learning any particular faculty member uses in the classroom—which allowed them to advise students of faculty that may meet their special social integration needs.

Intervention strategies for retention of first and second year students included orientation and mentoring programs and multiple strategy approaches (Brawer, 1996). Orientation programs are one of the most common ways that institutions influence retention. The programs were designed to help integrate the student into the academic community by explaining expectations for students, information on programs, information about assistance and college services, encouragement, and financial aid information. Completion of an orientation program during the first term of enrollment improved student performance regardless of age, gender, race, major, employment status, or entrance exam scores (Brawer, 1996).

Mentoring programs also assisted in student retention, including mentoring by peers or by faculty. This increased both academic and social integration, and can promote

the active learning classroom. Multiple strategy approaches, such as special support centers for minority populations, college-funded work-study programs to increase both interaction and financial assistance, hosting of student organizations, and developing orientation programs were instituted by some colleges (Brawer, 1996).

Rummel, Acton, and Costello (1999) questioned whether all retention was good for the institution. The authors examined the possibility that some student attrition is good—for example, the college may not want to retain students who are not academically suited for the institution. Their research found that some students left because of poor preparation, ensuring that the university did not graduate persons who would not represent the institution well in the business world. Meanwhile, some students were not provided conditions meeting their academic needs, including class sizes, program of study, or even an appropriate academic environment. Understanding why students leave an institution can help administration and faculty understand where to focus efforts on retaining desirable students—while also helping to ensure that students are attending an institution that meets their academic needs.

Distance Education and Student Retention

In its most general sense, distance education is instruction delivered over a distance to one or more persons (NCES, 1999). A wide variety of words has been used to describe that teaching/learning situation in which there is physical separation between teacher and student (Keegan, 1990). To many practitioners, distance learning focused on the student's perspective, while distance teaching is too "teacher-based." Rawson-Jones (as cited in Keegan, 1990) sums up the terms:

I do not like the term 'distance education.' It seems to put an undue emphasis on the distance between the teacher and the learner. But I cannot think of a better name for a multi-media educational process in which the teacher and the students

may never meet in a face-to-face situation. 'Distance teaching' seems too teacher oriented and 'distance learning' too student-based. Distance education combines the two, so, in the absence of a better name for the process, I shall use it when appropriate. (p. 32)

Keegan (1990) provided this definition—distance education is a form of education characterized by

- the quasi-permanent separation of teacher and learner throughout the length of the learning process (this distinguishes it from conventional face-to-face education);
- the influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services (this distinguishes it from private study and teach-yourself programmes);
- the use of technical media—print, audio, video or computer—to unite teacher and learner and carry the content of the course;
- the provision of two-way communication so that the student may benefit from or even initiate dialogue (this distinguishes it from other uses of technology in education); and
- the quasi-permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meetings for both didactic and socialization purposes. (p. 44)

This last portion of Keegan's definition is being taken under consideration by a number of researchers who feel that the creation of a learning community is an important factor in retaining students in an online distance education course (Palloff & Pratt, 1999). They note that the emergence of the computer in education has redefined the concept of distance education and distance learning. The authors define distance learning as:

- the separation of teacher and learner during at least a majority of each instructional process;
- the use of educational media to unite teacher and learner and carry course content;
- the provision of two-way communication between teacher, tutor or educational agency, and learner;

- separation of the teacher and learner in time and space; and
- volitional control of learning by students rather than by the distance instructor. (p. 5)

Palloff and Pratt (1999) continued the "key to the learning process are the interactions among students themselves, the interactions between faculty and students, and the collaboration in learning that results from these interactions" (p. 5). In other words, the formation of a learning community greatly enhanced the learning and teaching forum. Moller in Jung (2001) identified three types of virtual communities in online education: an academic community comprising interaction between learners and instructors or content experts; intellectual community provided through peer interaction; and interpersonal community developed through interpersonal encouragement and assistance. Collaborative learning showed a similar environment as intellectual community. Lally and Barrett (1999) found that online education does support a learning community that provides students with significant social and academic support.

Holmberg (1995, p. 175) engaged in a review of distance education theory, ending with his own inclusive theory, also called the theory of guided didactic conversation, incorporating learning, teaching, and administrative themes:

distance education is based on deep learning as an individual activity. Learning is guided and supported by non-contiguous means which activate students, i.e. by mediated communication, usually based on preproduced courses. This constitutes the teaching component of distance education for which a supporting organization is responsible.

As individual study requires a certain amount of maturity, self-discipline, and independence, distance education can be an application of independent learning at the same time as it is apt further to develop study autonomy. Central to the learning and teaching in distance education are personal relations, study pleasure, and empathy between students and those representing the supporting organization.

Feelings of empathy and belonging promote students' motivation to learn and influence the learning favourably. Such feelings can be developed in the learning process independently of any face-to-face contact with tutors. They are

conveyed by students: being engaged in decision making; by lucid, problem-oriented, conversation-like presentations of learning matter that may be anchored in existing knowledge; by friendly, non-contiguous interaction between students and tutors; counselors, and other staff in the supporting organization; and by liberal organizational-administrative structures and processes. (p. 175)

Distance educators have been interested in the theoretical construct of interaction.

Kozma (2001) noted that interaction plays a strong role in student success. Citing Moore (1989), Kozma discussed learner-instructor interaction providing motivation and feedback; learner-learner interaction in the exchange of information and ideas; and, learner-content interaction—the method by which the students gain access to the material. Kozma then cited Hillman, Wills, and Gunawardena (1994) adding a fourth interaction, that of interaction between the learner and the technology. Students without the basic skills spent unreasonable amounts of time learning to interact with the technology, giving them less time to learn the material.

Kozma also noted additional theoretical constructs affecting student success in distance education, including those of control and social context. Control research, including learner independence, found that students who feel their success is due to their own accomplishments are more likely to persist in their education. One important social factor was that of social presence, or the degree to which the student feels present in the learning environment. Praise, for example, enhanced a student's satisfaction in the class, also affecting the learner-instructor interaction.

Benchmarks or guiding principles for technology-mediated distance education included institutional support (a technology plan that incorporated security efforts, reliability of the delivery system, and a centralized support system for the distance education infrastructure). Course development benchmarks required that minimum standards were used for course development and learning outcomes determine delivery

technology; instructional materials were periodically reviewed; and that courses require that students engaged in "analysis, synthesis, and evaluation" (Phipps & Merisotis, 2000, p. 32). Teaching and learning benchmarks included the necessity of faculty and student interaction, while instructor feedback was to be provided in a timely manner. Faculty instructed students in proper methods of research and assessment of resource validity.

Phipps and Merisotis (2000) continued benchmarks for technology-mediated distance education with those for course structuring: students are assessed before the program to determine their self-motivation and commitment and their access to the needed technology; are provided with course information, including concepts, objectives and learning outcomes; and have access to adequate library resources. Faculty and students agree on times for student completion of assignments and faculty response. Students receive information about the program, including costs, books and supplies, technical and proctoring requirements and available student support services. They are provided with training and information to assist them in securing needed materials in online sources. Students have access to technical information throughout the program including practice sessions and technical support staff. Student service personnel should answer questions accurately and quickly. Faculty should receive technical assistance in course development and be encouraged to avail themselves of help in the transition from classroom to online teaching. Instructor training continues through the progression of the online course. Program data on enrollment, costs and successful and innovative use of technology evaluate program effectiveness, while educational success and the teaching/learning process is assessed through a variety of methods applying specific standards. Intended learning outcomes are also reviewed regularly (Phipps & Merisotis, 2000).

Student Characteristics and Attitudes

Student Characteristics

Klesius, Homan and Thompson (1997) compared distance education to traditional education examining student characteristics such as study habits, attitudes, perceptions, motivation, educational goals, time management, preferences and individual variables (learning style, marital status, GPA, age, and gender). Most of these characteristics have shown no statistically significant effect on success in distance education courses. Learning styles, ethnicity, background, and gender have limited effect, although women have been found to have a higher success rate in distance-education courses. Student goal-centeredness, procrastination levels and intrinsic motivation were found to be significant determiners of persistence and achievement

Powell, Conway, and Ross (1990) found that a framework of factors predispose success in distance education courses including those characteristics students bring at time of entry, changes in life circumstances that disrupt or alter goals, and institutional factors under the control of the education provider. In an ongoing evaluation of an online graduate-level business course, Duvall and Schwartz (2000) found no relationship significant differences in analysis looking at overall academic performance between technology-adept students and those without these same skills.

Student Attitudes

Student attitudes affected their retention within a degree program. Successful online learning experiences demanded self-management, self-reliance, and an accurate understanding of learner responsibilities (Howland & Moore, 2002) while having a degree objective strengthened student persistence (Richards & Ridley, 1997).

Understanding opinion topologies with respect to lifestyle, workplace, and learning style was researched by Valenta et al. (2001). Attitudes of traditional (undergraduate) and nontraditional (adult graduate) students were tested as they joined an online class for the first time. Students identified into one of three opinion types: issues of time and structure in learning; social interaction in learning; and, convenience in learning. All shared a belief in the importance of being able to work at home. The time and structure group's most important attitude was that web-based education provides flexible time management. Most important to the social interaction group was the potential for less participant discussion and that there may be fewer teaching "subtleties" (i.e., teacher feedback, interaction). The convenience of working at home and saving travel time was most important to the convenience group. In a research comparison of online and traditional computer applications classes, many students felt that they were able to be personally responsible for their own learning and pace themselves to meet course requirements (Cooper, 2001).

Lim (2001) researched a predictive model for adult learner satisfaction in a Web-based distance education course. The author surveyed 235 adult students participating in undergraduate, graduate, or continuing education online courses. A questionnaire was developed to examine computer self-efficacy, academic self-concept, age, gender, academic status, years and frequency of computer use, computer training, Internet experience, and participation in a training workshop for a web-based course. Of these, only computer self-efficacy—defined as one's belief in one's ability to use computers and learn new computer skills—was statistically significant.

In grounded theory research involving community-building within an online graduate education course, Brown (2000) noted that a three-stage phenomenon occurred:

in the first stage students made friends online, increasing their comfort level. In the second stage, the students created community through meaningful threaded discussions, creating kinship. In the third stage, camaraderie was achieved after long-term association. Since learner communities often choose to sustain relationships, creating an attitude of community in an online course may assist with retention.

An online masters level program from a major state university was studied by Chyung (2001). When the program began, the institution noted a 44% attrition rate by the end of the third course. Exit interviews found that student's low satisfaction with their previous online courses determined their decision to exit the program. Citing literature noting that adult learners are learning- and goal-oriented, the author examined the steps the institution took to remedy the lack of student satisfaction and evaluated the impact of these changes over several years. A variety of systematic instructional methodologies were implemented to improve motivational appeal of instruction and to increase online learner satisfaction. These included methodologies to ensure students understood appropriate online behavior, were knowledgeable about the technologies involved, met individual student learning needs, involved students in both faculty-student and student-student interactions, and that the institution understood how the program related to the student's professional goals. After four years, the program attrition rate decreased to 15%.

Barriers to Distance Education

Removing barriers, internal and external, for adult students participating in an online course increased enrollments into the program, provide higher student satisfaction, and increase student retention (Haehl, 1996). Galusha (1997) noted a variety of barriers to all types of distance education courses: costs and motivators; feedback and teacher content; student support and services; alienation and isolation; lack of experience; and

training. Many of these barriers were mitigated through proper use of various technologies. Use of e-mail, voice mail, online conferencing and other technologies provided interactivity. Student support was provided online or through telephone. Course materials should be carefully crafted to support the student, as well as train them in the appropriate technologies.

Morgan and Tam (1999) studied interrelated factors in student attrition in an online course. After qualitatively interviewing nine completer students and nine who dropped-out, the researchers noted that persistence barriers fell into four categories: situational (coming from the student's life circumstances), institutional (difficulties experienced), dispositional (student's personal problems), and epistemological barriers (caused by the discipline content or perceived content difficulty). While both persisters and nonpersisters experienced these barriers, the decision to stay in the program remained up to the student and his or her interpretation of the situation. Lessening the barriers over which the institution has control may have contribute to the student's persistence.

Personal circumstances and lack of time are major causes of attrition from distance education courses, and program costs can be a major disincentive (Rumble, 2000). Higher retention seems to be correlated with the pace of the course, continuous evaluation, faculty reminders of course deadlines, quick feedback on assignments, and student access to favorable study conditions. Wolford (2001), in research on graduate student attitudes and their relationship to online course performance, noted that the student's satisfaction or lack thereof with either online instruction or instructor affected the student's success in online courses. The author also found that a student's experience level with technology did not affect student success.

Bauman (2002b) reported on an increase in student retention in an online masters program. At the program's inception, there was a 44% attrition rate. While unable to address personal circumstances, the institution became proactive in addressing some other common attrition factors—being uncomfortable with the technology and misunderstanding the program content or not finding it pertinent to the student. It was noted that most students who quit did so before the third course. After focusing on strategies to retain students for the first three terms, (online orientation, increased student counseling, making course content relevant to student life experiences) the student attrition rate was cut in half.

Facilitating Online Learning

In research involving both students and faculty participating in an online bachelors level program at a medical university, Mauldin (2001) determined that students perceived that the effectiveness of the program lay in the faculty's enthusiasm of the technology; the faculty's ability to communicate course objectives, requirements, and assignments; and, the extent to which the students were encouraged to participate. Students were also impacted by the faculty member's dedication, by the relevance of the coursework, and by ease of access to technical support. Starke (1997) noted that student motivation is being given more weight as a factor in both learning and retention, "although faculty vary in their willingness to accept responsibility for building motivation" (p. 107).

Faculty should also understand that online students are very focused on understanding what is expected of them. A study by Youngblood, Trede and Di Corpo (2001) found that the role of the online course facilitator is instrumental in the success of the course. Students need direction in how to use the course technologies and how to

engage in the online course process. Best practices for faculty include monitoring student participation, facilitating critical thinking, promoting student collaboration, providing clear guidelines for students and responding promptly to student comments and queries.

Visser, Plomp, and Amirault (2002) discussed the role that understanding student motivation plays in the retention of students in online programs. Given that prior research has shown that a lack of motivation can influence a student's decision to drop out of a distance education class, the authors examined the difference that a variety of motivational communications from the instructor made to student persistence. Using two types of motivational messages (a) personalized motivational messages, based on an initial motivational analysis of two groups of course participants and on monitoring students' personal motivation (self-reporting); and (b) collective motivational messages, based on an initial motivational analysis of two other groups of course participants, the researchers found that persistence increased and students' reported satisfaction increased with the course. The authors also found that the type of message (personalized or collective) was not as important as the provision of any motivational message.

Student Support for Online Learners

Distance educators seem to have a clear understanding of the need for student support services, driven by concern about student attrition rates. Rumble (2000) summarized some distance education student support research: learners without support delay program completion; contact between students and the institution is beneficial; and advice given during recruitment and enrollment affects later performance. He also noted that institutions define student support in a variety of ways, making it difficult to compare services. Simpson (2000) suggested that the responsibilities of student support

be clearly defined and assigned to specific persons, so that evaluation and follow-up of support services may be examined.

Student support in online distance education has three primary functions (Tait, 2000) which define the range of services and which are essential and interdependent:

- Cognitive functions: supporting learning through standard and uniform element of course materials and learning resources;
- Affective functions: provision of an environment that supports students and creates commitment; and,
- Systemic functions: establishing administrative processes and information systems which are effective, student-friendly, and transparent.

Within these services, faculty and administration work together to design courses and program management that support students in a variety of ways, including student support through administrative processes and through careful design of course frameworks that support student learning and motivation.

Universities must provide outreach and service to students (Morrison, 1999). Students as customers are now demanding unlimited access to services—particularly to technologies allowing self-service. They register for classes, get their grades, examine the catalog, request a transcript, or interact with a faculty or staff member at their convenience. These "self-service capabilities" also aid the university, by freeing staff for more personal interactions with students. Any online students need access to the same types of services that on-campus students require—from admissions to academic counseling to recreation. Delivery of services will often be in the form of "distant and virtual contacts," less restrained from office hours (Moneta, 1997). While providing these services, the basic good practices of building supportive and inclusive communities

and providing the human touch must be employed. The key management trait of student affairs administrators will be adaptability and flexibility in service provision.

Notes on Research on Online Distance Education

A variety of studies exists to compare online or web-based instruction to traditional (i.e., classroom) instruction. Russell (1999) collected 355 research reports and papers showing no significant difference between forms of distance education and classroom education. While creating the collection to point out that use of technology did not improve instruction, Russell noted that technology also does not denigrate instruction, and "opens doors to increase efficiencies, circumvent obstacles, bridge distances, and the like" (pg. xiii). A website, <http://teleeducation.nb.ca/nosignificantdifference/>, was created to expand the database, as well as provide alternative reporting for studies that did find a significant difference between the two types of instruction.

Phipps and Merisotis (1999) stated that much research on distance education does not control for extraneous variables, the overall quality and validity of the research is questionable, and many of the studies do not control for reactive effects. The authors also noted that research tends to emphasize individual courses rather than program outcomes and does not adequately explain why dropout rates are higher for distance learners. They point out, "there is a vital need to develop a more integrated, coherent, and sophisticated program of research on distance learning that is based on theory" (Phipps & Merisotis, 1999, p. 6).

Summary

Chapter 2 reviewed the research literature on retention, distance education theory, student attitudes and barriers to retention in an online distance education program. Chapter 3 defines the research and data analysis process while Chapter 4 provides the

coding findings and includes quotations from study participants. Chapter 5 develops the coding process into theory and reports on findings from the various perspectives and documentation. Recommendations for research and implications for theory and practice are also offered.

CHAPTER 3 RESEARCH METHODOLOGY

The central purpose defining this research is to ascertain those factors that affect student retention in an online graduate certificate program. A quantitative approach to the research was used to seek to understand the subject's point of view, leading to general explanatory theory for the study (Dooley, 2001).

In this chapter, the research rationale, questions and methodologies are defined and the research sample and processes are described. Data collection methods are provided and data analysis is described.

Purpose of the Study

This study examined factors affecting retention in an online graduate Enrollment Management certificate program. A qualitative study using grounded theory, the research questions were designed to explore the boundaries of this concern and lead to the development of theory (Strauss & Corbin, 1998). The following question framed the study, "What factors affect student completion of an online graduate certificate program?" This broad question was then refined and focused as various perspectives of students (both those completing and not completing the program), instructors, administrators, and curriculum developers were compared through grounded theory techniques to build underlying theory regarding factors that impact student retention in an online program of study.

While the process sought to build underlying theory, the researcher also built from Holmberg's (1995) theory of distance education (called Holmberg's theory of guided didactic conversation) incorporating learning, teaching, and administrative themes:

feelings of empathy and belonging promote students' motivation to learn and influence the learning favourably. Such feelings can be developed in the learning process independently of any face-to-face contact with tutors. They are conveyed by students: being engaged in decision making; by lucid, problem-oriented, conversation-like presentations of learning matter that may be anchored in existing knowledge; by friendly, non-contiguous interaction between students and tutors; counselors, and other staff in the supporting organization; and by liberal organizational-administrative structures and processes. (p. 175)

Many studies exist to understand retention in courses offered through various distance education technologies, particularly interactive television, but few studies have examined retention and factors affecting completion across an online graduate program. The research questions were designed to qualitatively explore the boundaries of this concern and lead to the development of theory (Strauss & Corbin, 1998).

Research Questions

In this qualitative study, research questions were based on the perceptions of various program participants. In particular, the research addressed the following questions:

1. How do various factors affect successful completion of the program as perceived by students?
2. How do various factors affect successful completion of the program as perceived by program administrators, designers and faculty?
3. How do these perceptions support or conflict with each other?
4. What process theory might develop leading to retention of students in an online certificate program?

Rationale and Methodologies for the Qualitative Approach

Qualitative research is used when the researcher is undertaking an exploration of a central phenomenon (Creswell, 2002). Yin (1989) determined approach with the answers to three queries: (a) the type of research questions; (b) the control of the investigator over the actual events; and (c) the amount of focus on current rather than historical events. Examining "how" and "why" questions, removing any control over events, and focusing on current events leads to a preference for qualitative research, particularly case study research. Strauss and Corbin (1998) added that the nature of the research problem helps determine the use of qualitative methods—in understanding new areas with little previous research; finding out what people are doing and thinking; and understanding the nature of the experience of persons in specific instances.

Edwards (1998) noted that detailed observation and unbiased description are required when investigating new phenomena and that this description cannot be separated from theory development. Given that the research question in this study has been little studied previously, that a current program is being evaluated where the researcher has no control over the outcomes, and that the need exists to understand thoroughly the perspectives of the participants in an effort to lead to theory about distance education program attrition, undertaking a qualitative study was appropriate.

Case Studies

A case study is an indepth study of a chosen event, activity, process or group using extensive data collection (Creswell, 2002; Merriam, 1988). Yin (1989) provided a more technical definition:

a case study is an empirical inquiry that:

- investigates a contemporary phenomenon within its real-life context; when
- the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. (p. 23)

A qualitative case study is used to build theory and is an "examination of a specific phenomena such as a program" (Merriam, 1988, p. 9). These case studies use inductive rather than deductive thinking and analyzing.

One component of defining the case study is the unit of analysis. A general definition of the unit of analysis, and therefore of the case itself, is related to the way the initial research questions were defined (Yin, 1989). A case study may be about a program, as long as the boundaries, the beginning and end, are defined or bounded (Merriam, 1988; Stake, 1988).

A bounded system is identified as the research focus based on the topic of interest, in this case an enrollment management certificate program. Case studies are especially useful when one needs to "understand some particular problem or situation in great depth, and where one can identify cases rich in information" (Patton, 1987, p. 19). Dealing with a variety of evidence—interviews, documents, and observations—is a strength of the case study.

Grounded Theory

Grounded theory is "theory that was derived from data, systematically gathered and analyzed through the research process" (Strauss & Corbin, 1998, p. 12). There is no preconceived theory, rather a theory emerges from the data—the theory denoting a set of well-developed categories systematically interrelated through statements of relationship to form a theoretical framework that explains some relevant phenomena. This systematic procedure is used to generate a theory that explains a process, action, or interaction at a broad conceptual level. The theory is a process theory, explaining a process of actions and interactions occurring over time.

In qualitative studies, there is a variety of ways to interpret the data. In the grounded theory process, researchers use open and axial coding of the data, along with careful examination and interpretation. Grounded theorists examine a process or an idea, first by isolating and identifying aspects of interactions or actions as categories—themes of basic information—then relating these categories, and finally developing an explanatory theory. Often, researchers employing this method use the interviewing of a sample of individuals to generate data that will yield text and images useful for theory generation, called theoretical sampling. Once collected, the data is categorized, analyzed, new data is collected and compared to original data. This constant comparison is an inductive data analysis procedure that helps connect the various categories of data. (Creswell, 2002).

Research Methods

It is important in case study research to develop the case study protocol, the instrument and procedures and general rules followed in using the instrument. This protocol is a major element in increasing study reliability (Yin, 1989) allowing future researchers to duplicate the original research on a new bounded system. The case study protocol for this study follows.

Collection of Data

The bounded system was made up of the students, faculty, administration and curriculum designers that have participated in an enrollment management online graduate program offered by a major Southern university. The program was selected because it had been in existence long enough to have completers; there were enough registrants in the program to provide viewpoints of both completers and dropouts; the student base was international in scope and the faculty included both academics and adjunct expert

practitioners. A third source of data on student satisfaction (which equates to retention) was available through the evaluations that students took at the end of each course in the program. In qualitative research, theoretical sampling may occur in a variety of ways (Strauss & Corbin, 1998). When beginning a grounded theory study, the researcher uses an open sampling method that opens the sampling to all possible samples, be they written data, personal interviews, etc. Data was collected in three ways: interviews with students who participated in the program, faculty and administrators/curriculum designers who participated in the program, and end-of-course online evaluations that were submitted by the students at the end of each course. See Appendix A for the Case Study Interview Guide.

Student interviews. All students in the program were contacted by e-mail and given a description of the study, as well as an attached copy of the institution's Institutional Review Board (IRB) informed participant consent information. Students were given a choice of participating through a semi-structured telephone interview (students lived in a variety of locations, both national and international, and could not be interviewed face to face) or by answering the open-ended questions in a return e-mail. When interviewed by telephone, the entire conversation was collected by recording device and the interview was transcribed verbatim. E-mail interviews were collected as verbatim text.

Since the students involved were used to these types of communication because of their course medium, it was felt that this type of interview would be more comfortable to the student participants. Creswell (2002) noted that there are a variety of approaches to interviewing in qualitative research including one-on-one interviews, focus group

interviews, telephone interviews, and e-mail interviews. This sampling method resulted in 34 participants in the study out of 71 total students in the program (49%).

Each student participant was asked a few leading questions to begin the interview (See Appendix A, Case Study Interview Guide). Creswell (2002) noted that when conducting a telephone interview, the researcher should start with a small number of general questions that can then be expanded to reach the coding saturation desired in grounded theory research. E-mail, too, becomes a conversational medium, with replies that extend the question.

Since the research questions focused on perceptions of students who completed the program, and those who did not, completion of the program was defined as having already received the certificate or having at least eleven of the sixteen hours needed for completion. All other students were defined as not completing the program.

Faculty and administration interviews. The program administrator, course administrators, curriculum developer, and all faculty members were invited to participate in interviews, with the exception of two faculty members on the author's dissertation committee. Each was contacted by e-mail and given a description of the study, as well as an attached copy of the university's Institutional Review Board (IRB) informed participant consent information. Participants were interviewed by telephone (except for one individual who was not available except by e-mail). The entire conversation was collected by recording device and the interviews were transcribed verbatim. Each participant was asked a few leading questions to begin the interview (See Appendix A, Case Study Interview Guide)

Online evaluation data. In order to validate the data and provide additional data, and to allow constant comparison, the online evaluation process undertaken at the end of

each class was also examined. Students answered quantitative and qualitative questions (Appendix C) developed by the educational partners, faculty, and the curriculum designer on the technologies, content, assistance received and other areas of the course. They were also provided an opportunity to answer qualitative, open-ended questions on their perceptions of the course. These answers, provided by all class participants, were used to validate and expand theory development and to triangulate with data collected in the telephone and e-mail interviews. Due to technological difficulties, evaluations were available from only three classes.

Instrument and data collection. The semi-structured interview questions (Appendix A) were juried by national experts (Appendix B) in distance education or student services. The questions were different for different groups—type of student (left program, remained in program) and faculty, administrators, and designers as a different group—and were used for both phone and e-mail interviews. The questions for students focused on their perceptions of why they did or did not like the course(s); why they felt successful or unsuccessful; formation of learning communities; any technology use concerns; and if they would participate in another online distance learning experience. Faculty/administrator questions focused on perceptions of barriers for students; formation of learning communities; perceptions of student support; and any changes they would have made at the conclusion of the program.

Protection of interview participants. All participants were assured of anonymity in the presentation of study results. All were made aware of Institutional Research Board approval and their rights in the research. All participants acknowledged the consent form. Because a professional was used to transcribe the telephone interviews, this person signed a confidentiality agreement. As the researcher is a graduate student in the

department of higher education administration involved in the online program, special care was taken to ensure that no one in the study was identified to another and no interview information was shared.

Bias of researcher. Strauss and Corbin (1998) stated that it is impossible for the researcher to be completely free of bias. It is important to use analytic tools and questioning to move past the bias to understand underlying concepts. Use of questioning assists the researcher in understanding where else to sample or what further questions to ask in interviews to saturate the data. The researcher is a graduate student in higher education who is also the administrator of several continuing professional education classroom and distance learning programs. Given this professional experience, the researcher may have brought bias regarding administrative procedures or concepts to this study. In order to move past any bias, the researcher focused on participant response to questions, triangulated against the online evaluation responses during the coding process.

Analysis of the Data

Coding of data. Text from the verbatim telephone interviews and e-mail responses, as well as that engendered in the open question portion of the evaluation forms, was imported into WinMAX®, a software program developed for text code and retrieval analysis for grounded theory development. In grounded theory analysis, open coding is used to identify concepts and their properties. The researcher begins by classifying events, objects, or actions/reactions—examining discrete incidents, ideas, events or acts (Strauss & Corbin, 1998).

Development of the grounded theory process. The researcher places these incidents into categories of concepts, labeling them with a name that identifies a common link. The researcher continues with axial coding, linking categories and subcategories,

based on category properties. The coding leads to an explanation, an understanding of a phenomenon, rather than just the labeling of components.

As the researcher begins to understand how concepts relate to one another, the concepts become linked in relational statements. These links must be validated and further elaborated through review of obtained data and the process of going back for new data to corroborate findings.

The researcher begins with open coding to generate categories and properties and their varying traits. In axial coding, the categories are developed and linked with subcategories. One open coding category is placed as a central figure (the central category) and other subcategories are related to that central category. The core category is chosen through detailed criteria (Strauss & Corbin, 1998):

- it must be central; that is, all other major categories can be related to it;
- it must appear frequently in the data. This means that within all or almost all cases, there are indicators pointing to that concept.
- the explanation that evolves by relating the categories is logical and consistent. There is no forcing of data.
- the name or phrase used to describe the central category should be sufficiently abstract that it can be used to do research in other substantive areas, leading to the development of a more general theory.
- as the concept is refined analytically through integration with other concepts, the theory grows in depth and explanatory power. (p. 147)

The concept is able to explain variation as well as the main point made by the data; that is, when conditions vary, the explanation still holds, although the way in which a phenomenon is expressed might look somewhat different.

Once the major categories are linked in a larger theoretical design, the findings begin to be formulated as theory. Selective coding takes place to integrate and refine

categories, developing theory from these interrelationships (Creswell, 2002 ; Strauss & Corbin, 1998). Figure 3-2 diagrams this process.

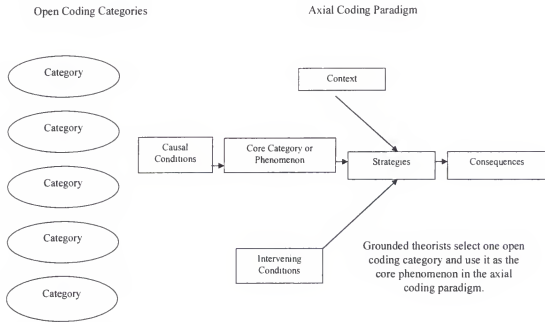


Figure 3-2. Grounded theory coding from open coding to the axial coding paradigm (Creswell, 2002, p. 444)¹

The winMAX® software allowed the investigator to code by dropping and dragging text, coding by color, automatically coding by key word and other functions that enable the researcher to code to develop categories, subcategories and linkages. As coding takes place, the researcher may create memos assisting in the organizing of the data.

Validation of the Data

Case studies examine a real situation and do not impact that situation by experimental design or manipulation. This usually creates higher external validity than

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do controlled experiments—one of the strengths of the well-executed case study (Edwards, 1998). To be valid, each step of the case study must be watched for threats to validity—these threats must be anticipated and methodically removed. During the interview process, the interviewer must carefully determine the questions to be free of bias or of leading the response. Having the subject read the transcripts and the final report provide a good validity check. This "member checking" asks one or more participants to validate the accuracy of the report, including the accuracy of descriptions, and the fairness of interpretations (Creswell, 2002). In this study, as each subject responded to final questions, they also were asked if they were willing to member check the report. Over 50% of participants have agreed to member check the findings.

Strauss and Corbin (1998) stated that a method such as triangulation can be used to judge the fairness and rigor of a study. Using data triangulation to validate the findings involves the use of a variety of data sources to study a single problem (Patton, 1987). Triangulation also strengthens reliability or consistency of the data results (Merriam, 1988; Stake, 1988). Multiple sources of evidence (Yin, 1989), interviews from varying perspectives, archival records, and documentation, can address potential problems of construct validity, as many evidence sources provide multiple measures of the same phenomenon. The reliability of the results of this study is enhanced by having three sources of data to constantly compare: student interviews, faculty interviews, and the data generated through the online evaluation forms.

Finally, validating the theory—determining if it makes sense to participants and is accurate—is an important part of the research (Creswell, 2002). This validation is done during the coding process. As the open coding occurs, data is triangulated; during axial coding, the data is checked against the categories determined in the open coding phase.

This constant comparison grounds the data. Discriminant sampling, evaluating questions that relate categories against evidence and events, helps validate the study. Once development of the theory takes place, it is compared against previously researched processes in the literature.

Summary

A case study is an in-depth study of a bounded system (Creswell, 2002). Using a grounded theory approach allows the data collected in a case study to be categorized and coded into a selective system that allows the researcher to develop theory. Data input from interviews and documents, constantly compared, assists in increasing the validity and reliability of the study. These methods will provide a means of understanding what factors affect the retention of students in an online graduate certificate program.

Chapter 3 defined the research and data analysis process. Chapter 4 provides the findings and rich description of the setting. Chapter 5 develops the coding process into theory and triangulates findings from the various perspectives and documentation. Recommendations for research and practice are also offered.

CHAPTER 4

GROUNDNED THEORY FINDINGS

This research study was undertaken to understand those factors that affect student retention in an online graduate certificate program. Because of time and funding costs in the development of a program, as well as meeting student learning goals, it is important to retain students once they enter the program. The grounded theory approach was used to determine the coding structures and diagrams leading to the creation of theory.

Chapter 4 covers the data collected, its coding levels and analysis, and the descriptive story of the experiences and perceptions of the students, faculty, and administrators in the online graduate certificate program. Chapter 5 offers a summary of the results found in Chapter 4, then compares those results to those found in the literature. The findings for each of the research questions are also presented.

Purpose of the Study

This study was developed to examine factors affecting retention in an online graduate Enrollment Management certificate program. A qualitative study, the research questions were designed to explore the boundaries of this concern and lead to the development of theory (Strauss & Corbin, 1998). The following question framed the study, "What factors affect the completion of the online graduate certificate program?" This broad question was then refined and focused as various perspectives of students (both those completing and not completing the program), instructors, administrators, and curriculum developers were compared though grounded theory techniques to build

underlying theory regarding factors under the control of the institution that impact student retention in an online program of study.

The Bounded System: The Enrollment Management Certificate Program

The bounded system was described as an online graduate level enrollment management certificate program managed through a partnership between the department of higher education leadership, foundations, and policy and the division of continuing education at a major Southern university and a nationally recognized enrollment management consultant firm. Course infrastructure was developed by a subcontracted for-profit course development company partnering with each course instructor for content. The course development company also administered the program for the first three semesters of the program.

Marketing of the program was handled by the enrollment consulting firm. The course marketing information on the department of continuing education's website described the course:

A collaborative on-line learning program emphasizing enrollment management has been developed through [commercial enrollment management company], the University Department of Educational Leadership, Policy and Foundations, and the University Division of Continuing Education. The program provides students with the best principles and practices in enrollment management and higher educational leadership-principles and practices with immediate professional applications. Enrollment management professionals or those seeking a career in this challenging field will find a new opportunity for career advancement or preparation for work in this exciting field of higher education leadership.

The Certificate in Enrollment Management:

The certificate in enrollment management coursework will focus on effective enrollment management, effective retention, applying technology to enrollment management, targeted communication, use of financial aid in recruitment, developing a campus-wide strategic enrollment management plan, and coursework in higher educational leadership. Sixteen credits are required for the certificate. Frequency of course offerings will be dependent upon total enrollment in the program with at least one enrollment management course each term.

Attendance at two national conferences--one on enrollment management and one on retention--will be required, but there is no campus residency requirement.

Benefits:

This on-line program offers students a variety of specific benefits, including, but not limited to:

- Learning while you earn
- Completing courses that meet institutional and personal needs
- Earning a nationally recognized credential in the profession
- Becoming part of a national network of enrollment management professionals.

(<http://www.doce.ufl.edu/coe/>)

Students did not have to have a college degree to enter the program, although the majority of students had at least a bachelors degree. Students were primarily currently employed in field in enrollment management or were interested in pursuing a career in the field. Hossler and Bean (as cited in Hossler, 2000) define enrollment management as

an organizational concept and a systematic set of activities designed to enable educational institutions to exert more influence over their student enrollments. Organized by strategic planning and supported by institutional research, enrollment management activities concern student college choice, transition to college, student attrition and retention, and student outcomes. These processes are studied to guide institutional practices in the areas of new student recruitment and financial aid, student support services, curriculum development, and other academic areas that affect enrollments, student persistence, and student outcomes from college. (para. 5)

Students were provided the opportunity to take a variety of online courses within the certificate program framework. Two courses were offered each term, usually with staggered start dates. Students could enter into the program at the start of any course. The first course began Summer Term 2000. Course offerings and available credit in the certificate program are shown in Table 4-1.

Sixteen completed credit hours were required to achieve a certificate in enrollment management. While initially courses could also be used towards the masters degree in educational leadership, this option was no longer advertised to students sixteen

months later. However, students who were admitted to the masters program had an additional online class in leadership, and some independent study courses delivered over the Internet but with no discussion component offered to allow them to complete the 36 (nonthesis) master's hours required.

Table 4-1. Courses offered through the enrollment management online certificate program

Course title	Term	Credit hours awarded	Number of students
Enrollment management	Summer 2001	2	23
American higher Education	Fall 2001	3	16
	Fall 2002	3	9
Financial Aid	Fall 2001	2	22
	Fall 2002	2	16
Target communications	Spring 2002	2	24
Higher education administration	Spring 2002	3	14
Applying technology	Spring 2002	2	13
Enrollment management	Spring 2002	3	10
Strategic enrollment	Summer 2002	2	20
	Spring 2003	3	N/A
Student Retention	Summer 2002	3	17
Target Marketing	Spring 2003	2	21

Attendance at two national conferences, one on enrollment management and the other on educational leadership, were originally required. At the time of writing, attendance at two conferences was still required, but topics had changed to one on enrollment management and the other on student retention.

It was suggested that students take two online classes totaling four to six credit hours per regular college semester; however, students could drop in and out of the program and take fewer or more credit hours as determined by their needs. Classes were held much like a classroom version with modules, assignments, chat room participation and discussion boards. Each instructor developed their own course syllabus and assignments with the help of the curricular design company that subcontracted to create

the course in the online medium. The course management system WebCT® was used to manage the course and provide support for chat rooms and discussion boards.

For each class, students received by mail a program manual and a CD of PowerPoint® presentations and other supplemental materials. The program manual contained information on being a successful distance learning student, website instructions (including instructions on participating in chat rooms and discussion boards), WebCT® guidelines, "Netiquette" instructions, program policies, contact information, and faculty curriculum vitae information, the course syllabus, course schedule, the course calendar, the modules of instruction and readings, the supplemental readings, and other course materials.

The program initially was managed by a program manager, a faculty member from the educational leadership, policy, and foundations department at the institution. This person's responsibilities included distribution of course materials, assistance in accessing online library materials, enabling the student to access the course website and monitoring the site, posting transcripts of chat sessions, scheduling the courses, posting announcements about any schedule changes, and handling student information (Enrollment Management, 2001). The program manager also acted as the liaison between student and higher education department, particularly regarding transcript evaluation for admittance to the masters program and other departmental requirements. During the first year of the enrollment management certificate program, the higher education department's program manager terminated her position with the institution, although remaining in an adjunct position as a faculty member. Another faculty member in the department, who also serves as the graduate coordinator, took over as the program

manager for those students in the masters program. The continuing education department took over the other coordinating activities.

The program was originally administered by the curriculum development company, but administration responsibilities transferred to the enrollment management program coordinator in the department of continuing education at the institution after the third semester. This person's responsibilities included program oversight, faculty and program evaluation, course and transfer credit, faculty assignment, and program policies (Enrollment Management, 2001). These responsibilities increased as responsibilities from the program manager (distribution of course materials, assistance in accessing online library materials, enabling the student to access the course website and monitoring the site, posting transcripts of chat sessions, scheduling the courses, posting announcements about any schedule changes, and handling student information) were transferred to the continuing education department. Part-time faculty members were hired through the division of continuing education in consultation with the institution's department of higher education administration and the enrollment management consulting company.

Each course began with an orientation to the course, including a teleconference instructing students on technologies used, and introducing students to the instructor and each other. Students also had the opportunity to meet face to face at the two national conferences. The program manual (Enrollment Management, 2001) instructed students on knowing their learning community:

this distance learning program is designed for high levels of interaction with your faculty and peers. Most students find that this support network helps make their learning experience more enjoyable and productive. Through regular contact and scheduled activities with both your Course Instructor and your fellow students, you will have many opportunities to discuss course content, formulate ideas,

share your experiences, and participate in group assignments. You will communicate with your peers through e-mail and Internet communication tools such as discussion forums and chat sessions. A team of program, content, and distance learning experts has been assembled to assist you as part of your learning community. (p. 6)

Twenty-three students began the program in June, 2001, with 48 students subsequently entering in later terms for a total of 71 at the time of writing. Four students (6%) completed the certificate program, successfully earning the certificate from the institution. Nine additional students (13%) were within five credit hours of completion, with four students (6%) having completed 15 credit hours. Two students (3%) completed their masters degree in Fall, 2002. Initial cost of the course was \$475 per credit hour, an application fee for the degree, any required texts, and expenses for attending the two national conferences (<http://www.doce.ufl.edu/coe/>). The cost per credit hour at the time of writing was \$495 per credit hour, plus any required texts and expenses for attending the two national conferences. This compared to regular credit graduate fees of \$179.35 per hour in state and \$667.92 per hour out of state tuition at the university at the time of writing. Total fees for the 16 credit hours needed for certification came to \$7,920, not including the additional text and conference expenses.

Four full-time faculty members from the University and seven noted practitioners in the field or from the enrollment management company taught to their expertise. Faculty members were assisted in creating the online version of their course by the curriculum development company. Using WebCT®, PowerPoint® slides and presentations, the syllabi, course calendars, instructor information, needed links to other resources, exams, chat areas and discussion boards were made available to the student. Students were also required to purchase or locate for use specific texts.

Findings

Student Demographics

Thirty-four students self-selected to participate in the semi-structured interview process, or 49% of students enrolled in the program. Of this sample, 20 (59%) were female and 14 (41%) were male. The mean age was 39, with an age range of 27 to 54, with one student declining to give her age. Degrees held when entering the program ranged from 1 student (3%) pursuing a bachelors degree to 12 (35%) with a bachelors degree, 13 (38%) with a masters degree, and 3 (9%) with a doctoral degree. Two subjects did not provide degree status. All subjects were employed in enrollment management in a college, university, or private consulting capacity.

The students ranged in level of participation in the program from 1 course attempted and no hours completed (grade received) to completion of the degree with 7 courses and 17 hours. The mean hours completed was 5.4, and the mean number of courses attempted was 2.4. Individual information on these students is provided in Table 4-2.

Out of 34 students interviewed in this study, 2 students (6%) had received the certificate and 5 students (15%) were within 2 credit hours of completing the program. Eight students (24%) had left the program. An additional seven students (21%) were thinking about leaving the program or slowing their pursuit of the degree. Out of the 34 students, the retention rate (figured on the eight students) was 76%. If the retention rate was figured on all potential leavers, the rate was 44%. The students who stated that they had left or may leave the program and their reasons for leaving, are shown in Table 4-3.

End of Course Evaluations

At the end of each course, students were asked to complete an online evaluation of the course. This evaluation collected qualitative and quantitative data pertaining to the

student's satisfaction with all areas of the course and program. Online evaluation form questions are described in Appendix C. Because of technical difficulties at the institution, only three course evaluation summaries were available. Information on these summaries is in Table 4-4.

Table 4-2. Student demographic information

ID	Gender	Age	Degree on entrance	Position title	Hours completed	Courses attempted
S1	F	41	MA	Dir., Student Financial Aid Services	2	1
S2	F	33		Dir., Enrollment	5	2
S3	M	33	BA	Assoc. Dir., Admissions	2	1
S4	F	27	MEd	Dir., Enrollment Planning & Reporting	17	7
S5	F	40	BA in progress	Admin. Coord., Enrollment Management.	4	2
S6	F	30	BA	Sr. Consultant, private company	2	1
S7	M	33	MBA, MSOD	Dean, Admissions	14	6
S8	F	37	MBA	Account Executive	13	5
S9	M	49	MS	Assoc. VP, Strategic Enrollment Mgmt.	2	1
S10	F	36	BA	Coord., Urban Recruitment	2	1
S11	F	51	PhD	Admissions Director	0	1
S12	F	53	MS	Dir., Student Life, Leadership & Programs	2	1
S13	M	39	MEd	Dir., Financial Aid	5	2
S14	F	52	PhD	Dir., Student Development	7	3
S15	F	32	MEd	VP, Student Affairs	2	1
S16	M	45	BA	Dir., Admission	7	4
S17	F	28	BA	Dir., First Year Experience	3	1
S18	F	49	BBA	Sr. Admin, Financial Aid Services	6	2
S19	M	27	MS	Dir., Admissions & Recruitment	5	2
S20	F	39	MA	Dir., Enrollment Services	2	1
S21	F	NA	EdM, EdD	Assoc. VP, Student Affairs	15	6
S22	M	32	BA	Dir., Student Recruitment	2	1
S23	M	48	BA	Dir., Admissions	14	6
S24	F	31	MBA	Special Projects Coordinator	5	2
S25	F	41	BS	Sr. Asst. Dir., Undergraduate Admission	4	2
S26	F	40		Dean, Enrollment Services	0	1
S27	M	32	BS	Asst. Dir., Admissions/Transfer Specialist	3	1
S28	M	34	PhD	Dir., Financial Aid	2	1
S29	M	30	BA	Dir., Admissions	18	7
S30	M	54	MEd	AVP, Enrollment Management	0	2
S31	F	40	BA	V Chancellor, Student Services	15	6
S32	M	44	MS	Asst. Dean, Enrollment; Dir. Financial Aid	2	1
S33	M	45	MEd	Dir., Admissions	0	1
S34	F	42	MEd	Dir., Admissions & Financial Services	2	1

Table 4-3. Students and their reasons for leaving the program

Left		Hours	Reasons for leaving program
ID	program?		
S1	Maybe	2	Content of class too basic, may take a different course to see if it more meets her needs
S3	Yes	2	Class too expensive given other family considerations. Receiving 100% tuition reimbursement for different masters program.
S6	Yes	2	Only wanted one particular course, transferred hours to different program
S9	Maybe	2	Would like to continue but finding program very expensive
S10	Maybe	2	Depends on additional courses offered and their materials and curriculum
S11	Probably	0	Little feedback from instructor, problems with technology, late information on books and materials, prefers classroom environment
S15	Maybe	2	Would like to complete but at slow pace as funds available
S17	Yes	3	Pursuing a different program
S22	Maybe	2	Would like to pursue but cost is a factor
S25	Maybe	4	Enrolled in an MBA program, would like to add some enrollment management courses
S26	Yes	0	Problems with computer, instructor didn't know she was enrolled, no refund available, too expensive, situation left her "feeling that the money was more important than the quality of my experience"
S27	Yes	3	Looking for program closer to home where he can be part of a cohort
S30	Yes	0	Work load is too high to continue
32	Yes	2	"The technology was a big barrier. The second most difficult barrier was the timing of the chat room sessions and the general lack of a pattern to them. The third barrier was getting a student ID to get into the library. Prefers classroom setting.
S33	Yes	0	ID card problems, couldn't access library, low faculty response, no one checked to see where he was, too expensive based on lack of library access. "If I had felt some kind of connection to the program I probably would have continued."

Table 4-4 Course evaluation form summaries

Form ID #	Total students	% Sample students also answering evaluation
EV1	4	100%
EV2	10	100%
EV3	18	50%

Faculty and Administrator/Coordinator Demographics

Faculty. Four full-time faculty and seven in-field practitioners hired as adjunct faculty taught the courses in the program. The full-time faculty members were from the department of higher education administration at the university. One of these faculty acted as the graduate coordinator for the department—this person also acted as program manager of the enrollment management online certificate program for the higher education department. Of these original four faculty members, one has left university employment but has continued with the certificate program in an adjunct capacity. Two of these four faculty members were not interviewed due to their presence on this researcher's committee. Neither of the interviewed faculty members was identified by position or years of service to maintain anonymity.

The seven in-field practitioners held a variety of positions in the industry including president of a college, director of financial aid services, and president of a private company (with several years as vice president at various institutions). Two of the adjunct faculties were on staff full-time with the enrollment management consulting firm. Of these seven practitioners, four were interviewed. The other three declined to participate. These faculty were also not identified by position to maintain anonymity.

Administrative/coordinator positions. There were several changes in coordination of the program in both the department of higher education and the division of continuing education. The course development company also assisted with administration of the program. Three individuals provided the administrative/ coordination perspective, which is reported throughout this study in tandem with the faculty perspective. Interviews included two persons who acted in administrative or coordination positions for the program from the department of continuing education at the institution and one person

who acted as administrator and curriculum designer from the course development company. The one faculty member acting as program administrator provided an administrative/coordination perspective in addition to the faculty perspective.

Administrators were not identified to protect their identity.

Open Coding

Grounded theory involves the reporting of a process, in this study the factors that affected a student's ability to remain in or complete an online certificate program. Each student interview was saved as a text document, then imported into WinMax© software for qualitative data analysis. During analysis, the data was shaped into indicators--"small segments of information that come from different people, different sources, or the same people over time" (Creswell, 2002, p. 451). The indicators were turned into codes or themes, which were then formed into categories that were more abstract. While this occurred, the analyst was comparing indicators to indicators, codes to codes, categories to categories. This process developed the evidence for the categories. As this occurred, the researcher documented the reflection and interpretation of the data using memos. During coding, the researcher asked questions of the data to understand what was actually happening and which category it represented.

The major categories emerged as each student's data was constantly compared against other student data, then against the data of students in the program acquired from their end of course evaluations and then against the data collected from faculty and coordinators. Once each category was defined, the researcher began to develop its specific properties or dimensions—the specific attributes of the category. Indicators were coded to subcategory or theme (such as enrollment, WebCT©) and were not coded as to negative or positive experience.

It should be noted that the student and faculty participants brought their own particular bias to this survey. Because the students and most faculty were in enrollment management, and employed in enrollment management positions, their feelings and perceptions about how they were treated within the program were colored by their own professional codes. Enrollment management is a process that guides practices in recruitment, financial aid, student retention, student support services and other support mechanisms. Therefore, these students especially may have brought higher expectations of student services to their enrollment in the program. The open coding categories and subcategories for all sources of student data are shown in Table 4-5.

Each of these categories and subcategories referenced factors that students felt impacted their ability to remain in the online program. Categories and subcategories were named based on in vivo codes, or a naming structure suggested from the student interviews. As these categories are discussed, illustrative quotes from student interviews and end of term course evaluations are included. The number in parentheses after the quotation refers to the student sample or the evaluation sample number. A coordinator or faculty quote is referred to by type in parentheses.

Open Coding Categories

Being online. This category came from perceptions and expectations of using the Internet and WebCT® as the learning medium. During open coding, the properties of categories were developed. The motivation of being online as convenient was referenced at such length that convenience became its own category. Instead, being online had properties that included the technology comfort level of the students, the student's "personal style" and their feelings about the use of WebCT®. Most students entered the program with the expectation that using the technology would be difficult. Instead, they

Table 4-5 Open coding categories and subcategories

Category	Properties	Dimensionalized examples
Being online	Personal style Technology comfort level Wait/patience WebCT®	Prefer classroom Comfortable Delays Easy to use
Communication	Administrator Faculty In online classroom	Advising Promptness of response Availability Feedback Group projects Interaction Meeting the others Learning community Posting to board/chats
Content/knowledge	Faculty Overall satisfaction	Attributes Development
Convenience		Flexibility Access
Coordination	Books/materials Disconnect program to Admin Enrollment Student ID card Library access Scheduling Tech coordination	Delay in receipt Course advising Timing Picture needed Unavailable for some Know in advance 24/7 help desk
Credibility		Nationally-recognized firm
Motivation	Certificate offered Final degree Help with career Juggling Family/work/school Personal goals Satisfaction	Only one available Possible masters program Networking Dependent on time of year Want lifelong learning Meet personal goals
Student Competencies	Student attributes Writing skills	Work ethic Course requires lot of writing
Very Expensive	Financial barriers Who pays	Other financial obligations Employer covers cost

found WebCT easy to use and very user-friendly. "The technology aspect of the course was not a problem. I had never worked with WebCT© but it was very user friendly"

(S27). A faculty member noted

[T]hey all started . . . tentative[ly], . . . they hadn't done it before. We started with . . . a global conference call and it was hard . . . it was just strange to try to get people on board and [to get them to] understand how we were moving ahead, but, the WebCT product that we used . . . was pretty logical, and it went pretty smooth[ly].

Since most people used computers in their work, and were very familiar with e-mail and other online skills, their initial technology skills were adequate to their needs. A coordinator noted

[The students] are naturally . . . curious and outgoing, so they are also . . . a generation . . . comfortable with computers and . . . using database software or Excel spreadsheets, . . . they're not afraid of the technology, so it's a chance for them to . . . go out and buy some more toys . . . and want . . . to use that technology.

Technology did factor into at least one student's departure from the program,

the worst thing was that I purchased a new computer so that I could work on the class from home and I had some technical problems and I was falling behind in the course. I was comfortable with the technology— just not ready to deal with a new computer and working out the bugs in my system. If I had more time to test the computer before beginning the class it would have been a smoother start.
(S26)

Several students did not want to go online (personal style), but had no alternative since an enrollment management certificate was only available through this medium. One student who left the program stated, "I believe that what I've learned through my experience is that the style of learning that I prefer is in the classroom" (S11).

Credibility. Students were motivated to complete the certificate program due to their perception of the certificate's credibility. "I am very proud to be taking classes developed by [enrollment management consultant firm] as they are a leader in this field

and I believe that lends credibility to the classes I am taking"(S12). Stated another student,

[I]t is connected with the [enrollment management consultant firm] organization, which is the national organization for this particular topic of enrollment management so that's how I heard about it, and of course they are very proactive in getting the word out and . . . to me that sort of gives them a seal of approval. (S14)

Convenience. Students were very satisfied with the convenience offered by the online courseware. The flexibility it gave them to schedule their learning into busy professional and family lives was a powerful factor in their satisfaction and retention in the program. "The flexibility in being able to do coursework at any time was very beneficial to completing the courses" (S8). Students also appreciated that they could access a program not available to them at nearby institutions. "[T]he reason I'm in this particular program is because it is the only one in the country that I know of and so I don't have the option of . . . finding something local that I could actually attend the classes. . . . [I]t provides the opportunity to take the courses. If it wasn't distance learning I couldn't do it" (S14).

Content/knowledge. Students were primarily complimentary of the content of the courses, with several students expressing an overall satisfaction with the course(s) they took in terms of both content and knowledge acquired. "It is almost eerie how closely the courses are meeting my needs and go hand-in-hand with my projects at work. I love it!" (EV1). Some students reported that material was too basic for their needs. Since all students were employed in the enrollment management field, but at differing levels of responsibility and number of years of employment, not all students met their knowledge needs. "I am not really sure what I want to do. I felt that my particular course was too basic for the level I am in my career. Perhaps I should give another course a try before I

totally conclude this. By just taking the one course, my impression is that the Graduate Certificate Program is more suited for individuals who are entry level or have only a few years of experience" (S1). Because this student did not meet her knowledge expectations in her first experience, she did not continue the program.

Students had high expectations of faculty knowledge, availability, and use of the technology. However, their perceptions of the faculty differed even within the same class as noted by these conflicting statements from EV1: "The faculty provided excellent guidance throughout the class, good instructors and facilitators" compared to "my facilitator appeared to be less knowledgeable in many areas (practical areas) than some of the students, and the facilitator doesn't give 100s which I find to be less than motivating." Another student noted, " [Full-time Faculty] has been the most responsive both time-wise and information-wise. Other professors have not been time conscious nor seemed to care - they seemed to be preoccupied, knowledgeable but preoccupied or overburdened with responsibilities" (EV2).

Faculty also provided motivation for students, "His temperament and responsiveness are the two reasons I did not drop this course" (EV3). Faculty members included both full-time university professors and adjunct practitioners in the field. Students noted some differences between them: "It should be noted that the [part-time] instructors were much more involved, responsive, and timely with feedback than the [full-time] professors. Frankly, I was disappointed on a few occasions with late grading, low involvement, and lack of organization/planning on the part of the [University] faculty" (S29). These perceptions depended on which faculty member was involved as this was also noted regarding a full-time faculty member: "[Full-time faculty] made this course for me with his understanding of the various issues and his feedback on

assignments. An A++++ for him . . ." (EV2). Overall, the students had high satisfaction content with the knowledge they learned, the medium, and the faculty, as evidenced by this statement, "The entire faculty was helpful and they are very concerned that the student is obtaining the highest level of education" (EV1).

Coordinators noted that the design of the course was important to the student's success,

regardless of the distance learning program. . . . In the beginning you work with one faculty member and you design sort of a course template. Because of the nature of the content, . . . around the specific discipline area, in this case enrollment management, there become certain kinds of learning activities and experiences, field experiences especially that become . . . typical for that course and so you end up with a course template that has similar kinds of experiences and activities and overall design in it. And then as you evaluate that course, you look at the data from the students and you look at the data from the faculty now having taught that course and that will then impact the course design for the next course and so forth. And also, when working in distance learning and working in the e-learning environment, because the students don't have the benefit of the day to day contact or weekly, two or three times a week face to face contact with the faculty member to get their individual questions more readily answered, the more consistency you have in course design and course presentation, the easier it is for the student. Especially if they are going to be in the same program, they're going to take several courses in this discipline or this program, then you try to, as much as possible, have the look and feel (as I call it) of the courses, have some pretty strong consistency. So the students get used to similar language and similar presentation, similar graphics, things that . . . similar ways of formatting that gives students a sense that they don't have to relearn from the course management system perspective what this course is like. But on the evaluation side, you want to continuously be improving that.

Faculty were pleased with student satisfaction with the course content. One faculty member commented, "I would want to just emphasize that . . . how impressed I was as a skeptic, with the amount of really good learning and practical application that the students took away from the course that I taught. And I'm saying that because I really believe it. But when I met with the students, they had rave reviews for what they experienced." Other faculty members felt that they needed to fine-tune their course

offerings to better meet student's ability to complete the work within the course frame, "I would make some adjustments . . . from my own account. . . . I gave them a lot of reading and there were times when I felt that I had . . . given them too much."

Faculty and coordinators both noted the need for ongoing professional development for faculty members as the program continued. With a number of adjunct instructors who had not taught within the university's structure or the online medium, care needed to be taken to help faculty be more comfortable.

[T]hat was a little bit of a frustration for me and I had asked . . . for some guidelines for grading. Because . . . I'm not a . . . professor by profession . . . I haven't really had a lot of experience with grading papers or grading student performance. And there really isn't anything or wasn't anything available to . . . let me know, is this work worth an "A" or is this work worth a "B," . . . so I'm not really sure how my grades compare to other classes. Whether I'm being too lenient or too tough. So in that sense I feel like I'm operating in a little bit of a vacuum and I'm not sure students really see consistency in how grades are assigned. (Faculty member)

Everybody was very helpful to me and I had lots of questions before I even started this process . . . , but I . . . always felt like I could have done more or if somebody else was more expert at this than I was. And so I just had this uneasy feeling that . . . maybe I should have some better way to get more interaction and that was . . . and so maybe somebody who has done this much longer than I have and has done it much better than I have could sort of be a coach to me. I think that would be helpful as an instructor, because I think we all want to do as good a job as we can and this is for people like me . . . this is a new experience. I'm happy to do it again, but . . . I'm always anxious to learn about it, but the only way I'm going to learn about it probably is to have some expert show me what I can do that would be better. (Faculty member)

I imagine each student has different expectations in terms of interaction and what they'd like to see or maybe would say leave me alone, others say I want more, and it's hard to please everybody, but with the technology, we'd like to be able to provide what we think is, you know, the best learning experiences that we can give what people know. So, faculty training is a real critical issue. To make sure that faculty, who are interested in doing this, have the chance to get their skills built up in that area. (Coordinator)

Motivation. Students had several motivators for enrolling in and completing the program. These included attaining the certificate or a masters degree, helping with their

career, and reaching personal goals. "My motivation to continue is to complete the program and receive the certification" (S16). "I enrolled for the professional value and curriculum content to help me further my career. Enrollment Management is a very elusive career path, one that people enter and get sucked into without the knowledge that it even exists until you end up there. Therefore, degree programs are very rare; even more rare is the program in a full distance delivery method" (S4).

There were also motivators for leaving the program. Some students could not juggle family, work and the demands of their schoolwork, other students had no desire to complete the certificate and left the program after receiving the information they required. Others began the program expecting to carry the degree towards a master's degree. Because of their uncertainty of the program allowing them to complete the masters, they looked for alternative programs.

I chose to "stop out" for some of the courses due to time demands at work. The fall is our peak season and balancing work, family and the class work would have been too much at this time of year. Unfortunately—there are some required courses that are offered only in the fall—this will be a challenge to complete those requirements. (S20).

I was concerned that I wouldn't get my masters degree. The certificate program was established but the courses for the masters were not. With the college I am currently working at assisting with tuition I didn't want to get so far and not get done and then unable to transfer credits to another program. (S27).

One coordinator noted,

[T]he feedback I got was that they thought that the application assignment in their real school or institutional settings were very effective. So they got a lot out of taking what they were learning and going to their colleges and universities and applying it and then writing and doing their assignments and their written work based on that versus hypothetical experiences.

A faculty member added that, "[students] were appreciative of the opportunity to earn graduate credit via this format so they were motivated."

Communication. In their interviews, students pointed to three kinds of communication: student to coordination or program administration, student to faculty, and student-to-student or online classroom communication. They had high expectations of both coordinators and faculty in terms of quickness of response to e-mails, assignments and program concerns. "I would like to have e-mails from the instructor answered in a more timely fashion." (EV3) "Not getting timely feedback from faculty was frustrating—a barrier in a sense that I felt it prevented me from getting better on each assignment. (e.g., in one course I received only one grade out of about ten assignments—and that came days before the last assignment was due)." (S29) Sometimes their expectations were very clear, "I would appreciate feedback from the instructor within 24 hours if you have a question on assignment, quiz, etc. I feel he should check his e-mail on a daily basis. Also, it would be beneficial to receive feedback on tests within one week" (EV3).

Faculty availability and faculty feedback ranked very high in frequency of comments from the subjects. A coordinator stated, "the only negative feedback we've gotten from students is regarding the communication issues between the instructor." A faculty member noted,

feedback I've gotten from them [students] would indicated the . . . the regular involvement of the instructor, providing feedback [is important]. I think some of them gave me some feedback that said that they felt like some of the instructors they've had in other online courses sort of disappeared part way through the semester and they felt like having an instructor who was . . . always there, either to answer questions or to provide feedback, was probably the most helpful.

Each course had its own set of expectations. Most instructors would let students know that they would get back within a week at the latest . . . knowing that these are working professionals and that the students are out working and having to schedule time. It presented all sorts of complications for these students, so everybody was very flexible and the expectations from the start were such that I 'will get back to you, obviously I'll try for 48 hours, but knowing that I might be

in or out. Usually most folks allowed a week. If it went more than a week . . . all of us felt uncomfortable, administrators, staff and student. We're starting to worry, how come, at a distance, communication again is not like the instructor walks in the door and the student walks in the door . . . that was interesting. (Coordinator)

Students wanted better communication in other ways as well. They had administrative or coordination communication issues as evidenced by this student:

"Prompt responses to questions about course materials, assignments, and administrative matters would have assisted me" (S22). One student used her experience in enrollment management to criticize the level of coordination communication:

I know that when the program first started there was somebody named [] that was doing all the I guess, all the administrative work, you know like registering you for the classes, taking your fees, things of that nature. And the good thing about [] was that she returned your phone calls. You have somebody named [] in there now who just never returns a phone call and you're lucky if you get an e-mail... If you do get an e-mail.. it's usually a very stern e-mail, very informal, and kind of just cut-and -dried. And one of the first things we've learned in one of the enrollment management classes is that . . . perception is everything and one on one contact is a must. (S5)

One coordinator noted that communication went both ways,

the few students that we got contacted by early on who had a lot of questions and a lot of enthusiasm, and were very high maintenance, administratively-speaking, were the first ones to drop out and we never could follow up on why. When following up with them they were never available it seemed to answer our questions.

Students also had strong feelings about the communication that took place in their online classroom. Several subcategories developed from the data, including the group projects, "classroom" interaction, the creation of a learning community, meeting the others face to face at a conference, and posting to bulletin boards and chat rooms. While the latter could have also be categorized under "Being online.WebCT©," it was entered under "Communication" due to the student's feelings about the actual conversation that took place.

"The worst thing about the course was the group projects. I found it very challenging to complete a group project with other students from a distance," (S17) noted one student. Another student added, "The worst was the group project and chat rooms. Too difficult to get together and I found the conversations in the chat rooms unruly and not productive" (S15). Several students found the chat rooms unproductive:

the mandatory chat sessions [were the worst thing]. Organization needs to be worked out. I felt that there [were] way too [many] personal discussions occurring during the chat session and the main focus was often lost. There were many times when I sat back and watched things unfold rather than participate because the chat lines were often cluttered with personal jargon. Yet I felt that if I didn't respond, no matter how meaningless, then it would look like I had the computer on but wasn't paying attention. (EV3)

Another student added, "I think the chat room discussions could have been more focused. They seemed a waste of time" (S27). Conversely, some students found the chats very beneficial; "I particularly enjoyed one instructor who had a chat session every weekend for an hour or two" (S23). Others liked the discussion board: "Most valuable was the discussion forum interaction with my classmates. They provided suggestions and feedback that I found extremely helpful!" (EV3). Some students felt that the boards were used poorly, that the instructor didn't interact enough, or that there should not have been a required number of postings:

[Worst thing was] probably the posting of the comments. . . . you need to be involved in order to . . . learn from each other, but then . . . just the idea that you're required to post . . . in response to so many people per week and based on the fact that we are all busy, we are all going in at different times and based on when I may have an objective to be finished by Tuesday for the week, no one else may not have gone in by Tuesday and posted everything. So there is no one for me to respond to. So it forces me to have to go back later in the week when I don't have time to respond to my classmates. So it didn't really allow for . . . a lot of . . . freedom in terms of when you wanted to actually be done for the week. (S14)

The "classroom interaction" subcategory focused on student's perceptions of the amount and kinds of interaction in the program. Some students were very happy with the level of interaction that occurred:

The course met my needs very effectively. I have been particularly impressed with the opportunities for interaction. While some interaction was required of all, students had the flexibility to interact as much or as little as their schedules and interests allowed. (EV3)

Other students missed the classroom interaction experience,

[Worst thing was] the lack of interaction with fellow students. As a working professional/wife and mother, I need the distance courses. But I would rather use the distance courses as a supplement to traditional coursework rather than as a substitution. I like to engage in conversation. (EV2)

Another student wasn't sure what she should have expected, "I expected more interaction between students and instructors than took place. But since this was my first online class, I did not have anything to judge by and perhaps this is how they all are" (S12). One coordinator noted,

[O]ne of the common threads of feedback was problems with doing team assignments. Because it was difficult for them to convene their team. And again, this had to do with the course . . . the fact the faculty didn't want to do a lot of live chat experiences and for team assignments to be effective, you really need more chat experiences. Students need to be able to communicate with each other in a live setting so that tool in WebCT or in the course management system called Chat which is a live discussion session, is an important resource for team experiences to work. . . . Also anytime you bring students together synchronously in a distance learning course, you've got to be cognitive of all their time zones. And in a distance learning environment, one of the reasons students like distance learning is because they can do it kind of anyplace, anywhere anytime and when you pull it together in synchronous experiences to some degree, you're minimizing that total flexibility.

Expanding on the interaction theme, students also made statements about their perception of the creation of a learning community in their online classroom. Some students felt part of a community, particularly if they had met face to face at one of the required conferences:

Several features of the program contributed to the feel of a learning community: discussion group postings, group assignments, and the opportunity to meet with other participants at conferences. It was interesting to see how much the class participants were learning from each other. (S25)

Some students felt that there was not enough interaction to create a learning community.

Still others felt that community was created through the chat and message boards, "Yes, indeed. The chats and e-mail made me feel very much part of a learning community.

Everyone was so insightful!" (S13). Several of the subjects felt that the "meeting the others" face to face was one of the most beneficial parts of the creation of a learning community:

[At the conference] we did an exercise where we traded sweatshirts from the different universities that we were from. So we really got to know each other. And the instructor made it a point that we have discussion groups and that we go online and talk to each other. And a lot of the times we would end up talking in separate chat rooms. And it was really nice because they would ask questions. What's going on at your university? How are you handling this? And we could tell what we're doing. They could share with us what they're doing and you build a lot of camaraderie and a lot of friendships. And I know I still keep in contact with about 4 or 5 classmates. (S5)

The coordinators brought up the desire within the curriculum design to create a learning community, and the barriers that to design in this program,

It's the intention, the design that we use is what we call a mentored cohort model. So the students work together in small learning communities rather than having . . . 100 students in the same course at the same time, we break them down into groups, . . . 20-25. And then they work through the program, the courses in those small groups and they . . . benefit in the discussions that they get to know each other and they're building off of each other, in those small learning communities. I think one handicap of this program is that they were not in the same learning communities the entire time. . . . [I]nstead of this program being designed like a degree or certificate program where you expect everybody will be taking all the courses, students were kind of in and out of these courses. They might take one or two or three, they may not take them all. And so it was more difficult to build . . . the cohesive learning community that we typically see in other degree programs that we work with.

Very expensive. Some students said directly that the price of the program was the reason they were not able to complete. "Cost is probably the biggest factor. I am considering additional courses, but I am not likely to complete the full certificate" (S22). "My barriers right now are financial" (S15). Several students also noted that there are no refunds after the course begins, no matter the situation. One student stated: "too expensive and my situation left me feeling that the money was more important than the quality of my experience" (S26). Some students had no problem with the fees charged; others received scholarships through the enrollment management company or tuition reimbursement from their employers. Who or what paid for the program affected several students.

One coordinator didn't feel that the cost was a problem,

the students that I've seen and talked to in the program, they all do this in order to advance their marketability, . . . and help them in their own positions. Because all the people in the program are . . . working in positions of higher education at universities all across the country . . . so if they're interested in this, it's to help their marketability. I haven't noticed or gotten anything from any of them that the price of the course is so high that they just can't take it. They seem to look at it as an investment. And, it's a good investment.

Student competencies. Students did not describe the competencies that they brought to the program as barriers, but faculty and coordinators noted these competencies as inherent to student success, particularly competencies in time management, self-direction, writing skills, and technology skills. "The student has to be very, very proactive in a course like this. If they're proactive, then they should be able to get as much as they want out of it" (Coordinator). One faculty member noted, "writing ability and the nature of the class, at least my class, required that the students complete several papers. And a lack of good writing ability could hinder their success in the class." Another faculty added, "I'd say it was the same things that seem to affect students in any

other course that I've taught. And that is, persistence, their willingness to read the material, and respond effectively to the assignments."

Coordination. This subcategory category covered all of those administrative duties that are entailed in managing a program, including enrolling students, getting library access, providing books and materials, scheduling the courses, and providing student support, including tech support. The process the student takes once they decide to enter the program helped to tell the coordination category story.

Once students have chosen to enroll in the class, they began the enrollment process. These students were discriminating customers of the program. As professionals in the enrollment management field, continuing their professional education, these students had high expectations for service and support from the institution and the faculty. Several students commented on good coordination/student services, including these statements: "The coordinator was fantastic, very responsive and helpful. Anything we needed as students he took care of!" (S13). "Course administrator was great. He/she was very helpful and usually responded within 24 hours. The CA did their best to cover for the instructors" (S9).

Still, when asked to list factors that had been barriers to their retention in the program, several commented on administrative issues (category Coordination). A representative collection follows:

The only improvement that I would make deals with the behind the scenes organization. I had to register twice before it was documented. I had trouble getting the invoice to pay for the course. I had to wait 3 weeks to get the required books for the course because one was a special order book. (EV1)

[P]reenrollment services could have been improved. . . . I would classify it more as an enrollment services as opposed to, you know, student services. But enrollment services and key communications in advance of the course starting

[are important]. Key communications about when the syllabus will be available, what books will be used. More support in the early enrollment stages. (S11)

My biggest frustration was just at the outset. Getting the access, the ID, and then getting access to the on-line services that I needed because being somewhere else, that's just critical. You're really at a stand still and it put me behind in my class and so that part irritated me a lot . . . and so I spent hours on the phone with tech support and there's nothing wrong my computer, it was an administrative thing that had not been done. . . . [T]hat was irritating; but once we got past that, I didn't have to call anybody else for anything and it was just smooth sailing after I got [the] technical part taken care of with the ID and the library. (S2)

A faculty member noted,

this is more a function of the coordinator at the University of Florida, um, but there was a fairly significant delay with students getting their textbooks and some of the course materials . . . a number of students didn't get their textbooks until, you know, a couple weeks into the class. So consequently I had to extend some of the deadlines past the end date of the class. So I think really early or timely delivery of course materials [is] probably the most critical thing.

Several students discussed the problems of getting their student ID card. They noted that the institution didn't seem to understand that distance learners should not need a picture ID card since they are not on campus:

we are required to get . . . a [institution] ID . . . ? Right, and we had to send in a photo. And we're distance learning students so we're never going to go in person so they can put our face to the photo . . . so logistically that was a pain, and I've never had to use it. So, you don't mind doing something if you know it's going to be worthwhile, so that's logistical kinds of things right there. (S14)

[Administration] needs a lot of work. I had a very difficult time getting this, . . . card, . . . and I feel like if I'm in [state], there's no way they kept asking me to come to campus to do stuff and it's like . . . is the right hand talking to the left? It's on-line, I'm not in the same city. Not even in the same state! . . . but yet I had to end up e-mailing, . . . at first they wanted me to mail a lot of stuff and I just . . . I just don't do good with mail. So I did get them to accept a picture via e-mail, . . . and I called them over the phone and gave them [a] credit card to charge the card to and got the ID that way. (S2)

Access to the library became another frustrating student support service gone awry. However, it was also a time for program coordination staff to provide alternative services when needed: "Barriers included library accessing—just very different" (S31).

Barriers? We could not get our on-line material from the library so it was paper mailed to the class but it took over a week to receive. I made the suggestion that they paper mail or .pdf/e-mail all the stuff to each class participant. (S10)

Another administrative/coordination factor that students stated was a problem was that of the scheduling of the classes and information about materials and texts. Students also noted that the timing of the classes within the program schedule could make completing the program difficult. This latter concern was raised by a few students near the end of their program who were unsure if they would be able to complete.

I was slightly less impressed with the fact the some of details about the program seemed a little sketchy. In the beginning it seemed that information was made available a semester at a time. There was little information available initially about the full curriculum and requirements for the certificate or degree. (S25)

More organization [needed] in regards to the required articles, as well as textbooks. If the syllabi had been sent out earlier- we would have had more time to get books that were backordered or difficult to find. (S24)

The flexibility in being able to do coursework at any time was very beneficial to completing the courses. I am not sure if I will be able to complete the certificate, since I still need three hours and the coordinator is not sure which classes will be offered when. (S8)

Both coordinators and faculty noted a disconnect between both the two university departments and university policy which can be seen in these statements from a coordinator and a faculty member:

if you split out your admin role as DOCE and the department's admin role you'd see yours as handing the money and working with the instructors but the program manager would really have first order contact. The person from the department would have the first contact with the students. [W]here would you put your admin role against the program admin role? We've found that we . . . need to really look at what we were doing. We didn't feel we were really doing a real[ly] good job when we put this together because we weren't sure what services were involved and how to best do this, because we had very little experience doing it with our print based correspondence students. We had this infrastructure so we looked at what were the elements that were needed and we tried to duplicate that using, leveraging the resources we already had in place in print based. We found that there were two types of areas that the admin services came down through with a lot of overlap and that was sort of academic services and . . . then there's sort of

isolated admin services that weren't really tied into the academics but there's a lot of overlap . . . inbetween all of that—whose job is that? How do you draw that line? At first those lines were not drawn, when we first put together this program. Subsequent programs we built and worked with we made sure we drew those lines and definitions—your duties and responsibilities in the department are as follows. (Coordinator)

I think that the biggest problem with the program is communication between us [department] and the Division of Continuing Education. And part of the problem is just the system because the University registers people [differently] than the Division of Continuing Education does. And the way they set up their classes, through [enrollment management firm], which adds a third entity in it, they don't run them . . . they don't run the classes by semester and so they might start a class in October, well that throws us way out of wack here. And it's not so noticeable if it's just the certificate program, but when they become our student, then it's a concern because it looks like they got an incomplete because their class started in October and it may not end until January or it looks like they didn't register. Those things really, to me, need to be a little more similar, on the same page. (Faculty)

Summary. In open coding, the data were pulled from the interviews and coded into categories and subcategories that developed in importance as the data were constantly compared, indicator to indicator, subcategory to subcategory, category to category. As the categories were developed, the properties and dimensions of the category also developed. The analyst also began to understand how categories related to other categories and how they moved on a continuum in terms of dimensions.

Axial Coding

Axial coding relates categories to subcategories and the reassembling of data that was fractured during open coding. The "axial" nomenclature derives from the coding occurring around the axis of the category, linking categories together at the subcategory or property level. Researchers begin looking for answers such as why, how, how come, where, when, and with what results to help understand connections between categories. (Strauss & Corbin, 1998). During this process, the core category is discovered, that category to which all other categories relate. A story line, an explanatory hypothesis,

begins to develop. Out of this process comes theory development as findings are presented as interrelated concepts. This theory is developed in Chapter 5.

For this study, the core category was identified as coordination, which this researcher then renamed Administrative Transactions. The core category was chosen through detailed criteria (Strauss & Corbin, 1998):

1. It must be central; that is, all other major categories can be related to it;
2. It must appear frequently in the data. This means that within all or almost all cases, there are indicators pointing to that concept.
3. The explanation that evolves by relating the categories is logical and consistent. There is no forcing of data.
4. The name or phrase used to describe the central category should be sufficiently abstract that it can be used to do research in other substantive areas, leading to the development of a more general theory.
5. As the concept is refined analytically through integration with other concepts, the theory grows in depth and explanatory power.
6. The concept is able to explain variation as well as the main point made by the data; that is, when conditions vary, the explanation still holds, although the way in which a phenomenon is expressed might look somewhat different.
(p. 147)

The Administrative Transactions category fit these criteria. All other categories were related to it, for the medium, the content, the means of communication, the cost, the credibility of the program, and the attributes or hiring of the faculty were all subject to administrative decisions and actions. Even motivation was related to the category, for without the program, the motivation would not exist. The category appeared frequently in the data, with all students pointing to some barriers or motivator that would affect their retention in the program. A logical and consistent explanation was derived and is diagramed in Figure 4-1. The name was abstract, the concept grew in depth and explanatory power, and variation was explained. The causal conditions influenced the

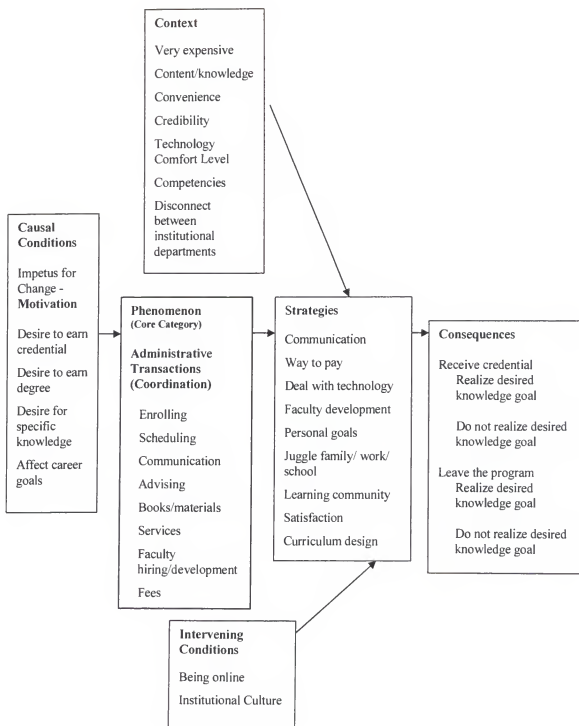


Figure 4-1. A theoretical model of administrative transactions affecting online learners

core category. The core category helped explain the phenomenon. Strategies were specific actions/interactions that result from the core phenomenon. The context referred to specific conditions that influence the strategies, the intervening conditions were general contextual conditions that influenced the strategies. Finally, the consequences were the outcomes from employing the strategies (Creswell, 2002).

The Storyline

Faculty and staff from a major Southern university's higher education administration and continuing education departments, a nationally recognized enrollment management firm, and a curriculum development firm met to create an online graduate certificate program, the creation of which involved a number of administrative and academic challenges, including a change in curriculum development firms just months before the first class took place in June 2001. Enrollment managers and other interested parties learned of the online enrollment management certificate program. Many students were excited by the convenience and flexibility. It was offered through online education. Some potential students did not like the online medium through which the program is offered, but were willing to take the program to receive the credential. The credential was a personal and/or professional goal. The student also may have enrolled to access one specific course such as Financial Aid or Marketing to enhance their professional skills in that area. Students came to the program from all over the United States, from Mexico, and from Canada.

Students entered the program with enough technology skills that they felt comfortable with the idea of learning online. They used computer skills in their job and were used to e-mail communication and Internet technologies. Most of the students had not had previous distance learning experience, although some had taken numerous online

courses. Many of the students entered with expectations of having difficulties with the course technologies. Most of the students found the course management software easy to use. Technology problems were solved via a helpline first managed by the curriculum development company and then by the department of continuing education. For most students, this was adequate, although some also relied on their institution's technical assistance. One student left the program because of difficulties with a new computer that she purchased to take the course, while another left due to too many overall technical challenges.

The students began to communicate online, over the phone, or by mail with the administrators/coordinators for the course. They were interested in general information on the program, they wanted to enroll, they wanted course schedules and technology requirements. They registered, paid fees, were informed of books and materials, went through a process to get student ID cards and online library access. During these processes, it became clear that there were some administrative glitches. The student ID required a picture, hard to coordinate online. The library worked for some students and not others, sometimes due to technology problems, sometimes to administrative problems. Schedules were not set in advance, which created planning problems for some students. Students had high expectations of immediacy of response from administrative/coordinative staff, which were not always met.

They were counseled by both the continuing education department and the department of higher education in the institution. There was a disconnect between these two departments due to changes in staffing and students get confusing information about whether the graduate certificate credits would be used for a masters program. Also, both departments were not always sure what courses were coming up in the program, making

it difficult to counsel students. Some students later left the program because they were not sure they would be able to complete a master's degree. Some students completed the certificate and transferred these credits to another institution's master's program.

The fees for the courses were set through the continuing education department. Some students received scholarships from the enrollment management company; others got assistance from their employers. Students could not get financial aid from the university, but they could apply for loans from various vendors. Students originally paid the fees; but some found that as the program went on, they had to cut back on hours per term, or leave the program and find something that better met their financial constraints. Some students felt there was too much focus on the financial aspects and were especially concerned about refund policies, which would not refund any money after a course had started.

Students enrolled for between two and six credit hours per term. They needed 16 hours to get the certificate. Classes were offered through WebCT® course management software, which provided ways for students to communicate with each other and the faculty member(s) through chat rooms, discussion boards, and processes to handle various course materials such as syllabi. Students also got book ordering information and course materials from the continuing education coordinators. Some students stated that there was a delay in the information needed to order books, so they received their texts late in the term, which caused them to be left behind in class. Others appreciated the extra work done by coordinators when materials were not available through the library—the coordinator faxed or e-mailed the materials to the students.

The faculty, full-time and adjunct, created course materials and put their courses online and via PowerPoint® presentations with the assistance of the for profit curriculum

development company. Faculty also facilitated the chat sessions and discussion boards, as well as working with individual students via e-mail. Some faculty members were more available than others in terms of contact options, available by phone as well as e-mail. Students wanted responses from faculty, preferably within 24 hours. Some faculty were that responsive, others were not. Students also wanted feedback on assignments very quickly. Again, some faculty met those needs, others did not.

Each class began with an orientation to the course, the technology, the materials, the instructor, and the assignments. The orientation was held as a teleconference with all students participating. Due to time zones, some students found that these teleconferences, as well as associated chat room discussions, were held very late in the student's day. However, most students liked meeting their classmates and instructor(s) over the conference call.

During the class, students communicated with administrators/coordinators over course, materials, and technology concerns, with faculty over course issues and topics, and with other students. Communication with other students occurred several ways: through the discussion boards, through chat sessions, through teleconferences, and, for two classes, through attendance at a national conference. For some students, this communication helped to create a learning community—a community of students/professional peers that became a support group through the classes and program. For other students, the communication became a requirement of the class, but did not result in a feeling of community or support. The value of the discussion boards seemed to come from the faculty leader's ability to move the discussion, to participate vigorously in the discussion, and to ensure that the students understood how to organize a threaded discussion on the discussion. The value of the chat sessions came from the faculty

member's ability to manage the sessions so that they were organized and did not result in a number of off-topic conversations. Discussion boards and chat sessions generated a number of negative responses in student evaluations, although the same students also substantiated the value of the communication in creating a learning community and increasing understanding and applicability of the topic.

As the course progressed, faculty noted that student competencies were a good indicator of student success. Those self-motivated students with good writing skills that participated in class discussions and chat rooms were most likely to succeed. Those that entered the program with poor writing or technology skills, or who had multiple work or family time constraints did poorly. These students have not completed the course they were in, or may have abandoned the program after the course completed.

Faculty also noted that there is some disconnect between coordination functions and student needs in terms of technology problems like WebCT® quiz areas being inaccessible, and problems with posting of grades. Faculty members also stated that they needed to be supported with professional development in areas such as use of the WebCT® technology, how other faculty grade student work, how to better integrate student communication options, and how to better design or manage their curriculum.

As the class(es) for the term completed, students filled out online evaluations assessing all factors in the program, including satisfaction with the various participating organizations, the marketing, the faculty, the materials, the administration, and then answered open ended questions on their best and worst experiences, future plans, and whether their needs had been met. Due to technological difficulties, many of these evaluations were lost before they could be used to make programmatic improvements.

Students then decided on their next step—to continue with the program, leave the program, or "step out" of the program for a term. Students that decided to continue contacted the coordinator regarding scheduling of the next classes and continued the process. Students that decided to "step out" or wait a term before deciding to continue did so for a variety of reasons including unavailability of funding, work or family time conflicts or the taking of time to examine alternative educational programs. Students that chose to leave the program also left for these same reasons, although some added that they were not comfortable in the online environment and would return to a traditional classroom setting.

Four students completed the program. One of these students noted a problem getting the certificate in a timely manner. Another stated that she missed the opportunity to attend a graduation or celebration of completion with her learning community.

Summary of Research Findings

In Chapter 4, through the grounded theory process, open and axial coding were used to break apart and then link together the collected data into categories. The core category, Administrative Transactions, was advanced and a figure developed to explain the causal and intervening conditions, strategies, context and consequences that surround this core phenomenon. A summary of the findings, conclusions, implications for online distance education program theory and practice, and recommendations for further study are provided in Chapter 5.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

Grounded Theory Conclusions

This study was prompted by a need to understand those factors that affect student retention in an online certificate program. Within this search came development of a coding structure with the phenomena "Administrative Transactions" at its core. Through open and axial coding, categories of factors were developed from data secured from students, faculty and coordinators in a bounded system. The final step of the process, selective coding, develops the phenomena, then integrates and defines theory coming from the data. During this process, relational relationships and concepts are developed that explain what has occurred in the study.

Chapter 5 offers a summary of the results found in Chapter 4, and compares those results to those found in the literature. The findings for each of the research questions are presented. Implications for online distance education program theory and practice, and recommendations for further study are also examined.

Summary of the Findings

In Chapter 4, the phenomena "Administrative Transactions" was developed from the open coding findings. The figure representing this phenomena is shown in Figure 4-1.

This model showed that students with motivation for change in their education or knowledge level (the causal conditions) were impacted by the administrative transactions that occurred as they entered their chosen educational program. These transactions

included enrolling, scheduling, communication, advising, books and materials, services, faculty hiring and development, and fees. These transactions led to strategies taken by students, faculty, and coordinators to minimize those negative factors and maximize those positive factors leading to retention of the student in the program. Strategies included communication, ways to pay fees, dealing with technology, personal goals, juggling time commitments, advising creation of a learning community, student satisfaction levels, and faculty development. These strategies were affected by the specific context of the program, which included the perception that it is very expensive; the content or knowledge available through the program; the convenience of the learning medium; the credibility of the program providers; the technology comfort level of all parties involved; the competencies the students brought to the program; and the disconnect between various parts of the institution.

Intervening or global conditions that affected the strategies included the perception of "being online" or using a new and different media, as well as the overarching institutional cultures of the program provision partners. Finally, students realized the consequences—they received their desired degree or they left the program, with or without specific information for which they joined the program.

Research Question 1

This research question addressed those factors perceived by the student as affecting successful completion of the course or program. Through telephone interviews or semi-structured e-mail exchange from 34 students, a number of factors were determined to affect student success and retention. Responses were open coded and then categorized. Categories were saturated with data. Students provided a variety of positive and negative factors, including (no rank order)

- Failure of faculty and/or administrators to communicate in a timely manner.
- Problems with administrative transactions such as library access, student ID cards, scheduling in advance of courses, late receipt of materials and text information.
- Difficulties using chat rooms and discussion boards.
- Time constraints such as work and family.
- Comfort level with the technology and course management software.
- Tuition costs.
- Quality and applicability of course content.
- Credibility of program providers.
- Convenience and flexibility of program provided online.
- Ability to receive unique and valuable credential and college credit.
- Support from a learning community or peers.

These factors are compared to the literature in the discussion of Research Question 3.

Research Question 2

This research question addressed those factors perceived by the faculty members and coordinators as affecting successful student completion of the course or program. Through telephone interviews with six faculty and three coordinators a number of factors were determined that affected student satisfaction and success. Responses were open coded and then categorized until the categories were saturated. Faculty and coordinators listed a variety of positive and negative factors they perceived affected the students, including (no rank order)

- Failure of faculty and/or administrators to communicate in a timely manner.
- Problems with administrative transactions such as library access, student ID cards, late receipt of materials and text information, posting of grades.

- Time constraints such as work and family.
- Comfort level with the technology and course management software.
- Convenience and flexibility of program provided online.
- Student competencies brought to the course, i.e. writing ability and technical skills.
- Creation of learning community and value of collegial network.
- Providing all courses in a course management template format that allows the student to become comfortable with the course delivery system more quickly.
- Providing professional development to faculty delivering the program classes to ensure similarity of grading styles and to provide assistance and mentoring on teaching in the online environment.

These factors are compared to the literature in the discussion of Research Question 3.

Research Question 3

This question addressed how the factors perceived by the faculty and coordinators and by the students supported or conflicted those of the other. Six of the factors were the same from both viewpoints: the failure of communication to occur in a timely manner; problems with administrative transactions; time constraints; technology comfort level; convenience of the online program; and creation of a learning community or peer support group. Students added difficulties in using chat rooms and discussion boards; cost of tuition; quality and applicability of course content; credibility of the program providers; and the receipt of a unique and valuable credential. Faculty and coordinators brought a different perception of factors, including the competencies the student brought to the course (writing ability, technical skills); the need to provide the courses within a framework that transferred from class to class to create a quick comfort level with each new course; and the need for faculty development to ensure their capable use of the technology and the medium. The factors are provided in Table 5-1.

Table 5-1. Comparison of factors affecting student success and retention in an online graduate certificate program

Student factors affecting retention	Faculty/coordinator factors affecting retention
Failure of faculty and/or administrators to communicate in a timely manner	Failure of faculty and/or administrators to communicate in a timely manner
Problems with administrative transactions such as library access, student ID cards, scheduling in advance of courses, late receipt of materials and text information, delay in receiving certificate	Problems with administrative transactions such as library access, student ID cards, late receipt of materials and text information, posting of grades
Time constraints such as work and family	Time constraints such as work and family
Comfort level with the technology and course management software	Comfort level with the technology and course management software
Convenience and flexibility of program provided online	Convenience and flexibility of program provided online
Support from a learning community or peers	Creation of learning community and value of collegial network
Difficulties using chat rooms and discussion boards	Student competencies brought to the course, i.e. writing ability and technical skills
Tuition costs	Providing all courses in a course management template format that allows the student to become comfortable with the course delivery system more quickly
Quality and applicability of course content	
Credibility of program providers	Providing professional development to faculty delivering the program classes to ensure similarity of grading styles and to provide assistance and mentoring on teaching in the online environment
Ability to receive unique and valuable credential and college credit	

Examination of the literature shows that there is no simple causal explanation for student attrition in distance education classes (Grace & Smith, 2001). Each student who dropped out does so because of a number of interrelated factors pertinent to the student's context. Researchers have noted that students often provide a superficial reason for

dropping out of a program, such as "lack of time," when the explanation really goes deeper and may affect the student's self-esteem, for example, the course is too difficult or they have not put sufficient effort into the course. Both persisting and nonpersisting students experience similar barriers and supporting structures and so the decision to persist or not depends on the individual and their experiences.

Barriers to participation in distance education fall into four categories (Morgan & Tam, 1999):

- Situational or arising out of the student's life circumstances,
- Dispositional or arising from student's personal attributes, including attitude, confidence, learning style,
- Institutional or difficulties experienced with the institution such as support services and admission requirements, and
- Epistemological or relating to content/knowledge and perceived difficulty of content.

The factors noted by both students and faculty/coordinators fall into these four categories. Situational circumstance factors described by both participant groups include time constraints such as work responsibilities, need to travel, and family obligations. These same factors were relayed in the literature as factors affecting student attrition (Morgan & Tam, 1999; Howland & Moore, 2002), with Howland and Moore adding that self-monitoring and self-management are critical skills for success in a distance education program.

Dispositional factors were noted by both students and faculty/coordinators, including comfort level with the technology and course management software; while faculty/coordinators added student competencies brought to the course, i.e. writing ability and technical skills. These factors corresponded to those detailed by Gunawardena and

Duphorne (2000) which showed learner readiness (prior comfort with technology, including e-mail and self-efficacy in mastering the course management system) with a positive correlation to student satisfaction. Lim (2001) found that computer self-efficacy as a predictor variable was statistically significant for learner satisfaction; while learner satisfaction predicted the student's intent to participate in future online courses. Interestingly, Duvall and Schwartz (2000) found no significant difference in academic performance in online courses between students with and without technological skills. In this study, only two students reported any perceived technology discomfort, although many discussed initial anxiety about using the medium. The students also found the courseware management system easy to use and navigate.

Epistemological factors found in this study included quality and applicability of course content (student-determined) and that providing all courses in a course management template format that allows the student to become comfortable with the course delivery system more quickly (faculty/coordinator-determined). Web-based instruction has not been linked well to established pedagogical theory in general or to distance education theory in particular (Jung, 2001) but Tait (2000) noted that consistency of design is helpful for students taking multiple online courses in a program of study.

The majority of factors affecting student retention determined through this study resided in the institutional category. These included the timeliness of instructor and administrative response; convenience and flexibility of the program provided online; support from a learning community; difficulties using chat rooms and discussion boards; problems with administrative transactions, tuition costs, the credibility of the program providers; and the receipt of a desired credential. Providing professional development to

faculty delivering the program classes to ensure similarity of grading styles and to provide assistance and mentoring on teaching in the online environment also was attributed to the institutional category, although it impacted students only indirectly.

These factors were validated in a number of research studies. Timeliness of response and lack of faculty availability were noted as barriers, with one study stating that students expected a response within 24 hours (Morgan & Tam, 1999; Galusha, 1997; Youngblood et al., 2001; Hara & Kling, 1999). It should be noted that as use of the Internet for connectivity increases through immediate communication venues such as Instant Messaging (IM) and videoconferencing, the expectation of rapid response rate will continue to increase.

The perception of an Internet-based course as convenient and flexible was also found in a variety of studies (Brace-Govan & Clulow, 2000). Creation of an online learning community facilitated student satisfaction (Palloff & Pratt, 1999) with Caverly and MacDonald (2002) noting that online interactivity through channels such as a discussion boards increased the sense of community. Available online features such as discussion boards and chat rooms had a strong correlation to student satisfaction in research by Gunawardena and Duphone (2000). Howland and Moore (2002) noted that students with higher levels of activity and interaction with classmates reported higher satisfaction and learning levels, even though many students stated a dislike for discussion boards and chat interfaces. Facilitators who guided online discussions and clarified expectations enhanced student satisfaction with online learning (Youngblood et al., 2001).

Problems with administrative transactions as a factor in student retention were cited by Rumble (2000). He stated that the student reacts as customer to institutional

support systems and noted there is a wide variation in how people define learner support and student services. The author believed that distance educators in general have a clear understanding that student support systems are integral to the distance education system, but that there is little clarity on what services work, how, and why. There also seemed to be no research on the perceived value of the learning acquired through distance education and the tuition that a student will pay to access that knowledge. However, in recent doctoral research, McCall (2002) noted that persons taking continuing professional education classes in a certificate program through a university found the program to be a very cost effective way of completing their continuing education needs. Richards and Ridley (1997) noted that having a degree objective can strengthen student persistence. Goldsmith, Lafferty and Newell stated that corporate credibility has been shown to influence customer decision to buy into a product. Finally, Phipps and Merisotis (2000) noted that faculty should receive technical assistance in course development and instructor training should be ongoing in the provision of an online course.

Research Question 4

This research question asked what process theory might develop leading to retention of students in an online program of study. In grounded theory research, theory emerges from the data. In this study, the researcher was built from Holmberg's (1989) theory of distance education, also called Holmberg's theory of guided didactic conversation, which stated that distance teaching will be successful only to the extent that it supports student motivation and learning pleasure, makes the content relevant to the student's needs and easily acceptable, and creates communication between faculty and student. Theory developed from the model of Administrative Transactions discussed earlier in this chapter.

In this study of an online graduate certificate program, a number of interrelated factors affected student attrition from the program. While some of these factors were of the student's volition, such as desire to achieve degree and the competencies brought to the experience, most were under direct institutional control, including the tuition, the faculty chosen to teach within the program, the student services provided, and the policies of the institution that affected program provision. The theory that developed out of this study added to Holmberg's theory of guided didactic conversation, stating that distance teaching will be successful only to the extent that administrative transactions support the student and the faculty, removing barriers to success and mediating the institution's culture to enhance the learning experience.

Implications for Theory

This study was based on extending Holmberg's theory of guided didactic conversation for distance education to online distance education. During the research process, as theory developed, the importance of the role of administrative transactions in supporting students in online distance education became clear. This importance also has impact on a different distance education theory, one that is under process of review by a number of online distance education theory researchers.

The focus of distance education theory is moving from the restraints and approaches that bridged geographic constraints via organizational strategies to a concentration on transactional issues of teaching and learning, specifically those that support sustained communication without time and place constraints (Garrison, 2000). Moore (1989) began the theory process with descriptions of three kinds of essential distance education interactions: learner to learner interaction; learner to instructor interaction; and learner to content interaction. As technology has evolved, Hillman,

Wills, and Gunawardena (1994) added to this list interactions between student and technological medium.

Moore then developed this understanding of interactions into the concept of "transactional distance," or the distance that exists in all educational relationships. This distance occurs based on the amount of structure and learner-instructor interaction, determining distance not by geography but by psychological relationship between structure and dialogue (Kozma, 2001). Chen (2001) offers support for the existence of transactional distance within the online learning environment. Garrison (2000) adds that macrolevel work must refine the transactional distance theory, focusing on the variable/concepts of dialogue, structure and autonomy.

It is this researcher's contention that as online learning opportunities increase exponentially for students, provided by higher education institutions and for-profit conglomerates, the interactions that support students as customers increase in value to both student and provider. When students had little choice in their educational options, the needs of the provider (scheduling, cost, access) could be met. Now that institutions are competing for students, especially for niche programs designed for the continuing student, it is incumbent on the institution to enhance the student-customer's experience in all ways. This includes outstanding and credible content and faculty offered through a useful and easy-to-interface technological medium, an understanding of how best to interact with and interest students, and the provision of a high level of customer support, called in this research Administrative Transactions.

If, as found in this research, students left their program or were dissatisfied (and therefore prime candidates to discontinue) primarily for factors under the institution's control, perhaps another interaction needs to be added to those already described.

Learner-learner, learner-instructor, learner-content and learner-technology interactions should be joined by learner-support structure or customer service transactions. While this research did not study the variable "amount of distance felt by student in transactions with the institution," this could be inferred from the factors reported by students that affected their retention in the program and is certainly basis for additional research.

Implications for Practice

This research provides a number of actions that online distance education providers can take to improve the experience of both students and faculty participating in online course work. These include

- Ensuring that institutional policies reflect the needs of programs—for example, in this study obtaining a student ID card was a barrier for the distance student. They needed the card to access the library to complete assignments. Getting the card was difficult because it required a picture. Could not a student electronic ID number have been issued?
- Ensuring that all divisions or departments of an institution and any partnering entities involved in the provision of online courses provide the same level of student/customer support and have access to the same knowledge database in terms of course scheduling, topic, instructor, etc.
- Ensuring an overall level of student/customer support in terms of access to support personnel, access to program information, access to course information such as books and materials, posting of grades and provision of the final credential in a timely manner, and hiring of instructors that enjoy and are comfortable with the technological medium.
- Considering the pricing structure carefully, ensuring that students understand all fees and extraneous costs, and providing a framework of financial aid for the program.
- Providing professional development for faculty and administrative staff such that grading policies, workload, and course structure are carried across a program.
- Providing professional development for faculty that assists them in creating an online learning community through careful facilitation of communication media such as online discussion boards and chat rooms.

- Engaging faculty and students in discussions on expectations of faculty and coordinator availability for response and contact. Setting reasonable standards for response times to e-mail and discussion boards and for times of availability of various program personnel.
- Creating a screening procedure for students entering the program to ensure that they have the necessary skills to be successful in the program and access to the technological hardware and software, including bandwidth, needed to complete the courses successfully.

Recommendations for Further Study

Further research is needed in replicating this study to understand how administrative procedures affect student retention in online distance learning programs. Replication of the findings will increase validity.

Several student support factors became apparent in this research. Each factor that affected student retention needs to be better understood. Research on return on investment for tuition fees spent would analyze the "very expensive" perception and assist course administrators in setting fees that met institutional goals but would be competitive in the marketplace. Research into better ways to enhance chat rooms and discussion board use in the creation of online learning communities would assist faculty and course designers in creating a better learning space for students.

Research into the role of institutional policy and procedures as it affects successful online student support would assist institutions in the development and improvement of online courses of study. Hodge (2000) found that states with statewide higher education distance education policies in student support areas did not have statistically significant differences when compared to states without statewide policy. However, research into retention rates in programs in states with and without statewide student support policies would help determine whether these policies affect student support service provision. Research into equity of distance education and traditional

classroom support and the retention of students therein would also be helpful to distance education providers.

Research into student expectations of frequency and time to response would assist faculty and course administrators in creating a viable communications student support system. Because faculty has enormous influence on student retention, research into faculty attitudes towards the somewhat different needs of online students would also be of benefit.

Finally, research that supports expanding distance education theory to online distance education is necessary. Previous theory reflected distance education technologies that did not allow the amount of communication now possible between learners and instructors. These new technologies, still coming along fast and furiously, will impact online distance theory and challenge academicians.

APPENDIX A CASE STUDY INTERVIEW GUIDE

Collection of Data

1. Each participant receives an e-mail introducing the researcher and the study, explaining the consent (Institutional Research Board) form, and requesting participation in the study.
2. Each student participant that responds by e-mail is thanked for their time and told that researcher may have additional questions. Each e-mail response also includes student's informed consent.
3. Each student participant that requests a phone call is e-mailed with a request for phone number and convenient time to call. Phone calls are started with request to record and verbal approval of consent language. Phone calls are then provided to a transcriptionist and transcribed verbatim, then returned to researcher via e-mail as a text file. Telephone subjects are thanked via e-mail.
4. Each faculty/administrator is invited to participate by e-mail. A time convenient to the subject is set and the subject receives a copy of the leading questions in advance via e-mail. Phone calls are started with request to record and verbal approval of consent language. Phone calls are then provided to a transcriptionist and transcribed verbatim, then returned to researcher via e-mail as a text file. Telephone subjects are thanked via e-mail. Each faculty/administrator is invited to member check the findings.
5. After each e-mail interview or telephone transcript is received, it is immediately coded in the WinMax software. This coding as sampling takes place leads to more purposeful questioning. Memos are included in the coding to suggest follow-up questions.
6. Student second-level questions, formulated through the memoing process, are e-mailed to participants. After answering, students are sent a thank you and an invitation to member check findings.
7. After each e-mail interview is received, it is immediately coded in the WinMax software.
8. All surveys to take place via phone conversation or-by e-mail, with verbal informed consent before participation

Interview Questions

For those who have left the program:

- What was the best or worst thing about the course(s) you took?
- Were you comfortable with the technology before you began the program?
- Did you feel part of a learning community?
- Why did you choose not to continue or what were your barriers to continuing in the program?
- How satisfied were you with the overall course(s) - faculty, coordination, materials, WebCt and other portions?
- Had you taken a previous distance education course before you began the program? Would you take another distance learning course in any topic in the future?
- Demographics:
- Male or female
- Certificate or masters program
- Age
- Work title

For those with at least 11 credit hours in the program:

- What was the best or worst thing about the courses you took?
- Were you comfortable with the technology before you began the program?
- Did you feel part of a learning community?
- What were any barriers you found while working in the program and what helped you the most in completing the program?
- How satisfied were you with the overall program - faculty, coordination, materials, WebCt and other portions?
- Had you taken a previous distance education course before you began the program? Would you take another distance learning course in any topic in the future?
- Demographics:
- Male or female
- Certificate or masters program
- Age
- Work title

For the CE program administrator, faculty member, and curriculum designer.

- What was your role in the online Enrollment Management Certificate program?
- What do you think most affected student success in the program?
- What did you perceive as the greatest barriers for students?
- Do you think a learning community was created through the course/program?
- Did you see improvement in each student's ability to work within the program frame?
- What would you have done differently, with the setup, the curriculum, the evaluation or the administration, to improve your course or the program at large?

2nd-level questions for all students:

- What was the degree you held when you began the program?
- What motivated you in your class or classes despite any barriers you felt?
- Has the cost of the program influenced your participation?
- How did you feel about communication between you and the faculty?
- How did you feel about communication between you and the course administrator(s)?

APPENDIX B
ENROLLMENT MANAGEMENT DISTANCE EDUCATION COURSE
EXTERNAL SURVEY EVALUATORS

Dr. Vincent De Sanctis
President, Warren County Community College
Washington, NJ
Member, Commission on Learning and Communications Technologies
American Association of Community Colleges

Dr. Chuck Guengerich,
President, Wilbur Wright College
Chicago, IL
Member, Commission on Learning and Communications Technologies
American Association of Community Colleges

Dr. Jolly T. Holden
Senior Projects Manager for Training and Development
StarBand Communications Inc.
McLean, VA
Chairman Emeritus, U.S. Distance Learning Association

Dr. Arthur Sandeen,
Professor, Educational Leadership, Foundations and Policy
University of Florida
Gainesville, FL
Previous UF Vice President of Student Affairs

Dr. John R. Sneed,
Director of Distance Education, Portland Community College
Portland, OR
Chair, Professional Development
Instructional Technology Council Board of Directors

APPENDIX C
QUANTITATIVE AND QUALITATIVE QUESTIONS ON
END OF COURSE ONLINE EVALUATION FORM

Quantitative Questions

Students could choose one of the following: not applicable, strongly disagree, disagree, neutral, agree, strongly agree.

1. Brochures, letters, and other materials were accurate.
2. Brochures, letters, and other materials were appropriate in scope and depth.
3. Brochures, letters, and other materials were easy to understand.
4. Brochures, letters, and other materials were received in a timely manner.
5. When I called (for-profit company) for help or information, the people I spoke to were knowledgeable.
6. When I called (for-profit company) for help or information, the people I spoke to were responsive and friendly.
7. When I called (for-profit company) for help or information, the people I spoke to were available when I needed them.
8. I have mastered the learning objectives for this course.
9. The course content was appropriate for my needs.
10. Textbook reading assignments were appropriate in scope and depth, relevant, and valuable.
11. Supplemental reading assignments were appropriate in scope and depth, relevant, and valuable.
12. Multi-media presentations were appropriate in scope and depth, relevant, and valuable.
13. Writing assignments were appropriate in scope and depth, relevant, and valuable.
14. Chat sessions were appropriate in length, relevant, and valuable.
15. Group projects were appropriate in scope and depth, relevant, and valuable.
16. Research assignments were appropriate in scope and depth, relevant, and valuable.
17. Clinical experiences were appropriate in scope and depth, relevant, and valuable.
18. The Course Manual was appropriate in scope and depth, relevant, and valuable.
19. The website was well organized and easy to use.
20. The website functioned correctly.
21. Technical support was responsive and helpful.
22. Technical support was available when I needed it.
23. The Course Instructor or Coordinator was knowledgeable.
24. The Course Instructor or Coordinator was prepared.
25. The Course Instructor or Coordinator was organized.

26. The Course Instructor or Coordinator was objective.
27. The Course Instructor or Coordinator was fair.
28. The Course Instructor or Coordinator was responsive and helpful.
29. The Facilitator was knowledgeable.
30. The Facilitator was prepared.
31. The Facilitator was organized.
32. The Facilitator was objective.
33. The Facilitator was fair.
34. The Facilitator was responsive and helpful.
35. Interaction meetings were held at a convenient location.
36. The Interaction meetings were held at a facility that was appropriate for the learning activities.
37. The Interaction meetings were appropriate in length.
38. The Interaction facility was comfortable and suitable to the nature of the presentation.
39. Meeting time was used appropriately.
40. The meeting time was valuable.
41. I would recommend this distance learning experience to a friend or colleague.
42. Please click on all of the reasons below that describe why you chose this course/program:
 - I like or need the convenience of distance learning.
 - I prefer the distance learning format.
 - I want a degree/certificate from this institution.
 - Someone recommended this course/program to me.

Qualitative Questions

43. Overall how well did the course (or program) meet your needs?
44. What was your best (most valuable) experience in the program?
45. What did you like least about the program?
46. What improvements would you make in the program?
47. What were the faculty's strengths and weaknesses?
48. What other courses/programs interest you?
49. Other general comments or suggestions?

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BIOGRAPHICAL SKETCH

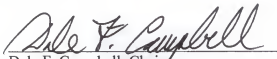
Kristin (Kris) T. Williams is Assistant Vice President for Workforce, Continuing and Community Education at Santa Fe Community College, Gainesville, Florida. Ms. Williams administers the college's continuing and community education programs, also working with state and local workforce providers. She has managed grants for local industry workforce training, along with grants for a Small Business Development Center. Her division provides corporate training to business and industry in two counties, as well as a multitude of open enrollment lifelong learning and professional development courses to the community.

Current research and practitioner interests include best practices for corporate universities, the role of eLearning in training and development, the role of training and development in small business success, preparing the new leader in a time of change, and cycles of organizational structure in the community college.

Ms. Williams serves at the state level as the continuing education cochair of the state's Continuing and Adult Education Standing Committee for community colleges. She has also served as a state Board of Directors member for Adult and Community Educators of Florida and for the Florida Association of Community Colleges.

Ms. Williams holds a B.S. in agriculture, animal science, and an M.Ed. in higher education from the University of Florida, Gainesville. Ms. Williams was selected by peers in her doctoral cohort as a "Rising Star" in the profession.

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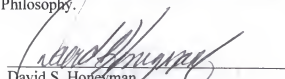
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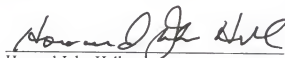
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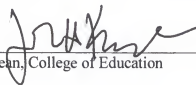
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Howard John Hall
Lecturer of Management

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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